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11 SUMITOMO CHEMICAL CO. LTD.

12 UNITED STATES DISTRICT COURT
13 NORTHERN DISTRICT OF CALIFORNIA

14 VALENT U.S.A. CORPORATION AND
15 SUMITOMO CHEMICAL CO. LTD.

Case No. CV 08 0720 VRW

16 Plaintiffs,

**PLAINTIFFS' MOTION FOR
EXPEDITED DISCOVERY**

17 v.

18 SYNGENTA CROP PROTECTION, INC.

Hearing Date: June 26, 2008

Hearing Time: 2:30 p.m.

Courtroom: Courtroom 6, 17th floor

19 Defendant.

NOTICE OF MOTION

20 TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD: PLEASE TAKE NOTICE
21 that on June 26, 2008, at 2:30 PM, or as soon thereafter as counsel may be heard, Plaintiffs Valent
22 U.S.A. Corporation ("Valent") and Sumitomo Chemical Co., Ltd.. ("SCC") (collectively "Plaintiffs")
23 will and hereby do move the Court for an order, pursuant to Fed. R. Civ. P. 26(d)(1), allowing the
24 parties to immediately commence limited discovery prior to the conference required under Fed. R. Civ.
25 P. 26(f)(1).

26 In the alternative, Plaintiffs respectfully request that the Case Management Conference,
27 currently scheduled for September 18, 2008, be rescheduled to an earlier date consistent with the
28 Court's Order dated May 30, 2008, rescheduling the hearing date of defendant's motion to dismiss
from August 14, 2008 to June 26, 2008.

1 **CONCISE STATEMENT OF RELIEF REQUESTED**

2 Plaintiffs respectfully request that the Court issue an order, pursuant to Fed. R. Civ. P. 26(d)(1),
 3 allowing the parties to immediately commence limited discovery prior to the conference required
 4 under Fed. R. Civ. P. 26(f)(1), *i.e.*, prior to August 28, 2008. In the alternative, Plaintiffs respectfully
 5 request that the Case Management Conference, currently scheduled for September 18, 2008, be
 6 rescheduled to an earlier date consistent with the Court's Order dated May 30, 2008, so that discovery
 7 may commence sooner by operation of the Federal Rules of Civil Procedure.

8 **MEMORANDUM OF POINTS AND AUTHORITIES**

9 **I. INTRODUCTION**

10 The '469 patent issued in September 2006 to Syngenta. Although Plaintiffs believed then, and
 11 still strongly believe today, that the '469 patent is invalid, soon after the patent issued, SCC inquired
 12 about a license. SCC believed that a business solution was preferable to bringing a declaratory
 13 judgment lawsuit charging invalidity, such as the present suit. But, after one year of meetings it
 14 eventually became clear that no license would be offered. In fact, Syngenta ultimately admitted that it
 15 did not want to see any new entrant in the seed treatment business after all.

16 Unfortunately, Plaintiffs lost one year during which they could have sought a declaration that
 17 the '469 patent is invalid. Plaintiffs did not file this lawsuit until 15-months later than they otherwise
 18 would have. The Plaintiffs are greatly prejudiced by this timing because the products at issue are
 19 agricultural and sales are driven by relevant annual seed treating and planting seasons. Even just a few
 20 months delay in discovery, and in the ultimate resolution of this case, can potentially delay the
 21 introduction of Plaintiffs' products for an additional year. Such delay would be extremely detrimental
 22 to Plaintiffs' business interests.

23 As explained below, Syngenta has delayed this case long enough. Plaintiffs respectfully
 24 request that their motion for expedited discovery be granted and that Syngenta be ordered to produce
 25 within 30 days those documents and information it would normally be obligated to produce as part of
 26 its initial disclosures under Fed. R. Civ. P. 26(a)(1)(A)(ii) – *i.e.*, documents that Syngenta has in its
 27 possession that it may use to support its claims or defenses.

28 Specifically, since the validity of the '469 patent is at issue, the following categories of

documents are relevant and must be produced by Syngenta as part of its initial disclosures:

i) documents related to the development of the inventions claimed in the '469 patent (*e.g.*, lab notebooks, documents related to the "synergistic effect" described in the specification, etc., all of which are relevant to validity, including inventorship, whether the claimed invention is obviousness in view of the prior art, whether there were unexpected results, etc.);

ii) documents related to Syngenta's use of clothianidin on genetically engineered and non-genetically engineered plants or their seeds, including data on all working examples described in the '469 patent (these documents are relevant to whether it would have been known to a person of ordinary skill in the art to apply clothianidin to genetically engineered plants or their seeds); and

iii) any license agreements involving the '469 patent including the alleged license agreement with Bayer (these documents are relevant to, *e.g.*, whether Bayer, or any other third party, should be joined in this lawsuit due to its acquisition of enforcement rights under the '469 patent).

Plaintiffs would also reciprocate with limited discovery.

In the alternative, should the Court decline to grant Plaintiffs' motion, Plaintiffs respectfully move the Court to reschedule the Case Management Conference to an earlier date that is convenient to the Court so that discovery may commence by operation of the Federal Rules of Civil Procedure.

II. STATEMENT OF FACTS

Syngenta owns U.S. Patent No. 7,105,469 ("the '469 patent") which purports to cover the treatment of genetically engineered plants or their seeds with the insecticide known as clothianidin. A true and correct copy of the '469 patent is attached as Motion Exhibit 1. Beginning this December 2008, Plaintiffs will be making and offering for sale clothianidin for use on seeds of genetically engineered plants,¹ and for the past several years, Plaintiffs have been engaged in necessary field testing in order to comply with federal and state regulations and to prepare for its entry into the

¹ Pursuant to the terms of a pre-existing license agreement between Takeda and Bayer CropScience AG ("Bayer"), Bayer has the exclusive right to sell clothianidin in the U.S. for the treatment of seeds. That exclusive right expires in November 2008. Moriya Declaration. At ¶9.

1 clothianidin seed treatment business. Moriya Decl.² at ¶ 11. Since the relevant seed treating and
2 planting seasons are limited, even just a few months delay can potentially delay the introduction of
3 Plaintiffs' products for an additional year. Moriya Decl. at ¶ 30

4 Syngenta should have been aware of Plaintiffs' testing of clothianidin as well as their intent to
5 offer clothianidin for sale to treat seeds of genetically engineered plants since October 2006. Moriya
6 Decl. at ¶ 15. Syngenta has asserted that its '469 patent covers the use of clothianidin on seeds of
7 genetically engineered plants, one of the uses for which Plaintiffs will make clothianidin commercially
8 available in the U.S. Moriya Decl. at ¶ 21, 23. Thus, the parties have a substantial controversy over
9 the legality of the Plaintiffs' current use and fast-approaching plans to offer clothianidin for sale for
10 use on seeds of genetically engineered plants.

11 Indeed, SCC was surprised that the U.S. Patent and Trademark Office allowed the '469 patent
12 to issue since SCC believed then, and still strongly believes today, that the '469 patent is invalid.
13 Moriya Decl. at ¶ 14. But, SCC nonetheless approached Syngenta and promptly inquired about a
14 license one month after the '469 patent issued in October 2006. SCC believed that a license under the
15 '469 patent was preferable to costly legal action and would also avoid introducing any additional time
16 delays into an already very time-sensitive business plan. Moriya Decl. at ¶ 26.

17 But as the weeks, and then months, passed and still there was no license, it eventually became
18 evident that Syngenta did not intend to grant a license under the '469 patent. Moriya Decl. at ¶ 25
19 Rather, Syngenta's apparent motive was to give SCC false hope into believing a license was available
20 so as to forestall a declaratory judgment lawsuit challenging the validity of the '469 patent. As long as
21 the '469 patent remained unchallenged, Syngenta would be able to interfere with Plaintiffs' seed
22 treatment business by casting doubts among Plaintiffs' potential customers about the legality of
23 Plaintiffs' market entry, and by threatening to assert the '469 patent against Plaintiffs when Plaintiffs
24 entered the seed treatment business this December.

25 After months of so-called negotiations, Syngenta admitted that it did not want to see a new
26 entrant in the seed treatment business -- apparently another reason why a license was not made

27
28 ² "Moriya Decl." refers to the Declaration of Motoharu Moriya in Support of Plaintiffs' Response to Syngenta's Motion to Dismiss the Complaint, filed on the same date as the instant motion.

1 available. Moriya Decl. at ¶ 25. Syngenta's alleged business partner, Bayer,³ also eventually admitted
 2 that it wanted to keep Plaintiffs out of the seed treatment business. Moriya Decl. at ¶ 24.

3 In addition to admitting it wanted to keep Plaintiffs out of the seed treatment business,
 4 Syngenta, on at least two occasions, threatened SCC with a patent infringement lawsuit under the '469
 5 patent if Plaintiffs engaged in the seed treatment business for genetically engineered plants. Moriya
 6 Decl. at ¶ 21, 23. Having no other recourse, Plaintiffs confirmed the bases for their belief that the
 7 '469 patent is invalid, secured U.S. counsel and filed the present lawsuit.

8 Since Plaintiffs filed the present lawsuit on January 31, 2008, they have made every effort to
 9 expedite the process. For example, when Syngenta requested an extension of time to file its answer, or
 10 otherwise respond to the complaint, Plaintiffs granted only a 2-week extension. *See* D.I. 022.
 11 Plaintiffs also consented to the exercise of all jurisdiction by a U.S. Magistrate Judge. D.I. 014.

12 **III. ARGUMENT**

13 **A. Legal Standard Governing Motions for Expedited Discovery**

14 In *Semitool, Inc. v. Tokyo Electron America, Inc.*, 208 F.R.D. 273, (N.D. Cal. Apr. 19, 2002),
 15 this district rejected a more rigid standard and adopted a "good cause" standard in deciding a plaintiff's
 16 request for expedited discovery, where "good cause may be found where the need for expedited
 17 discovery, *in consideration of the administration of justice*, outweighs the prejudice to the responding
 18 party." *Id.* at 276 (emphasis added). The court also noted that "courts have recognized that good
 19 cause is *frequently found in cases involving claims of infringement and unfair competition.*" *Semitool*,
 20 208 F.R.D. at 276 (emphasis added).

21 The *Semitool* court granted the motion because the benefits to the administration of justice (*i.e.*,
 22 "expedited discovery would ultimately conserve party and court resources and expedite the litigation")
 23 outweighed the possible prejudice or hardship on the defendants. *Id.* at 276. In deciding there was no
 24 prejudice to the defendant, the *Semitool* court noted that the requested information was limited in
 25 scope, was relevant to the issues in the case, and would have been produced during the normal course
 26 of discovery anyway. *Id.* at 276-277. The court also considered important the fact that "the parties are

27
 28 ³ Syngenta and Bayer allegedly have agreements that control and constrict sales of products like clothianidin for
 their benefit and to the detriment of other companies like Plaintiffs.

1 both represented by sophisticated counsel and have engaged in pre-litigation discussion for over a
 2 year.” *Id.* at 277. “Hence the Court is unable to discern any real prejudice to Defendants in advancing
 3 discovery by a modest amount of time.” *Id.*

4 Similarly, in *Invitrogen Corp. v. President and Fellows of Harvard College*, 2007 WL 2915058
 5 (S.D. Cal. Oct. 4, 2007), the court also found “good cause” and granted the plaintiff’s motion for
 6 expedited, limited discovery even though a motion to dismiss was pending. *Id.* at * 4.

7 **B. There is “Good Cause” To Grant Plaintiffs’ Motion**

8 Just as in *Semitool* and *Invitrogen*, there is also “good cause” here to grant Plaintiffs’ motion
 9 for expedited discovery. Indeed, the facts of this case, including the extensive pre-litigation delay
 10 caused by Syngenta, are even more compelling than those in either *Semitool* or *Invitrogen* and, thus,
 11 warrant Plaintiffs’ motion being granted.

12 **1. The benefit to the administration of justice outweighs any prejudice to Syngenta**

13 Currently, the Case Management Conference is scheduled for September 18, 2008. Thus, the
 14 latest the Fed. R. Civ. P. 26(f)(1) conference could be held, and the earliest discovery can commence,
 15 is August 28, 2008. Plaintiffs requested an earlier Rule 26(f)(1) conference with Syngenta so as to
 16 commence discovery earlier than August 28, 2008, but consistent with its pre-trial strategy of delay,
 17 Syngenta refused to meet earlier, citing its pending motion to dismiss as the reason for its refusal. *See*
 18 May 20, 2008 Letter from McCurdy to Sherwood, a true and correct copy of which is attached to
 19 Sherwood Decl.⁴ as Sherwood Exhibit 1.

20 Although Plaintiffs recognize that the law permits Syngenta to have its motion to dismiss
 21 heard, the pendency of that motion does not mean that the Court should not make other orders in this
 22 case. *See Nielsen v. Merck & Co.*, 2007 U.S. Dist. LEXIS 21250, 2007 WL 806510 (N.D. Cal. Mar.
 23 15, 2007). In fact, as discussed above, the *Invitrogen* court granted a motion to expedite discovery
 24 while the defendant’s motion to dismiss was still pending. *Invitrogen*, 2007 WL 2915058 at * 4. Just
 25 as in *Invitrogen*, the pendency of Syngenta’s motion to dismiss should not preclude granting Plaintiffs’
 26

27
 28 ⁴ “Sherwood Decl.” refers to the Declaration of Jeffrey K. Sherwood in Support of Plaintiffs’ Motion for Expedited Discovery.

1 motion for expedited discovery. And since this Court has now accelerated the hearing date for that
2 motion, Defendant's concern has been addressed.

3 Further, just as in *Semitool*, the benefits of granting Plaintiffs' motion for expedited discovery
4 in this case outweigh any prejudice to Syngenta. For example, granting Plaintiffs' motion would result
5 in conserving the parties' and the Court's resources and would also expedite the litigation since it
6 would put the parties at least two months ahead of the current schedule for the start of discovery (*i.e.*,
7 mid-June as opposed to end of August). *Semitool*, 208 F.R.D. at 276. And once Syngenta's motion to
8 dismiss is decided, the parties will be better prepared for possibly dispensing with the case early either
9 on summary judgment and/or possible settlement.

10 **a. The requested information is of a limited scope, is relevant to the**
11 **issues in the case and would be produced during the normal course**
of discovery

12 Just as in *Semitool*, Plaintiffs are seeking limited discovery of information that is most relevant
13 to the issues in the case. *Semitool*, 208 F.R.D. at 276-77. Specifically, Plaintiffs request documents or
14 information that would normally be exchanged as part of the parties' initial disclosures under Fed. R.
15 Civ. P. 26(a)(1)(A)(ii) -- *i.e.*, documents that Syngenta has in its possession that it may use to support
16 its claims or defenses.

17 Plaintiffs request the following categories of documents which are relevant to the validity of the
18 '469 patent and which Syngenta is otherwise obligated to produce as part of its initial disclosures:

19 i) documents related to the development of the inventions claimed in the '469 patent (e.g.,
20 lab notebooks, documents related to the "synergistic effect" described in the specification, etc., all of
21 which are relevant to validity, including inventorship, whether the claimed invention is obviousness in
22 view of the prior art, whether there were unexpected results, etc.);

23 ii) documents related to Syngenta's use of clothianidin on genetically engineered and non-
24 genetically engineered plants or their seeds, including data on all working examples described in the
25 '469 patent (these documents are relevant to whether it would have been known to a person of ordinary
26 skill in the art to apply clothianidin to genetically engineered plants or their seeds); and

27 iii) any license agreements involving the '469 patent including the alleged license
28 agreement with Bayer (these documents are relevant to, *e.g.*, whether Bayer, or any other third party,

1 should be joined in this lawsuit due to its acquisition of enforcement rights under the '469 patent).
2 Plaintiffs would also reciprocate with limited discovery. Thus, just as in *Semitool*, Plaintiffs are
3 proposing a document production of limited scope, or information relevant to the issues in the case and
4 that would be produced during the normal course of discovery.

5 **b. The parties are represented by sophisticated counsel and have been**
6 **involved in pre-litigation discussion for over a year**

7 Just as in *Semitool* and *Invitrogen*, the Court should not find that expediting discovery of such a
8 limited scope is unduly prejudicial to Syngenta. For example, the parties in this case are represented
9 by sophisticated counsel, thus, the parties are certainly on even ground in that regard. *Semitool*, 208
10 F.R.D. at 277. Further, just as in *Semitool*, the parties in this case were involved in pre-litigation
11 discussions for more than a year. This case was filed in January 2008. Thus, combining the pre-
12 litigation period with the post-litigation period, Syngenta has had more than 1-1/2 years to become
13 familiar with the issues surrounding the current conflict between the parties. Thus, Syngenta cannot
14 now credibly claim that it is unfamiliar with the issues or that it needs more time.

15 **C. In the Alternative, Plaintiffs Request That the Case Management**
16 **Conference Be Rescheduled**

17 In the event the Court does not find "good cause" to grant Plaintiffs' motion for expedited
18 discovery, Plaintiffs respectfully move, in the alternative, to reschedule the Case Management
19 Conference to an earlier date consistent with the Court's Order dated May 30, 2008, so that discovery
20 may commence by operation of the Federal Rules. Currently, the Case Management Conference is
21 scheduled for September 18, 2008. But since Syngenta's motion to dismiss will now be heard 7 weeks
22 earlier than previously scheduled, Plaintiffs respectfully submit that the parties should be fully
23 prepared to discuss the case schedule earlier than September 18. Thus, while being sensitive to the
24 Court's docket, Plaintiffs respectfully request that the Court consider rescheduling the Case
25 Management Conference to a date earlier than September 18, 2008, which would in turn enable
26 discovery to commence sooner than August 28, 2008.

1 **IV. CONCLUSION**

2 For all the foregoing reasons, Plaintiffs' motion should be granted

3
4 Dated: June 12, 2008

AKIN GUMP STRAUSS HAUER & FELD LLP

5
6 By Reginald D. Steer
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EXHIBIT 1



US007105469B2

(12) **United States Patent**
Lee et al.

(10) **Patent No.:** **US 7,105,469 B2**
(45) **Date of Patent:** **Sep. 12, 2006**

(54) **USE OF NEONICOTINOIDS IN PEST CONTROL**

(75) Inventors: **Bruce Lee**, Bad Krozingen (DE);
Marius Sutter, Binningen (CH);
Hubert Buholzer, Binningen (CH)

(73) Assignee: **Syngenta Crop Protection, Inc.**,
Greensboro, NC (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 168 days.

(21) Appl. No.: 11/019,051

(22) Filed: **Dec. 21, 2004**

(65) **Prior Publication Data**

US 2005/0120411 A1 Jun. 2, 2005

Related U.S. Application Data

(60) Division of application No. 10/125,136, filed on Apr. 18, 2002, now Pat. No. 6,844,339, which is a continuation of application No. 09/600,384, filed on Sep. 21, 2000, now abandoned.

(30) **Foreign Application Priority Data**

Jan. 16, 1998 (CH) 80/98
Mar. 25, 1998 (CH) 706/98

(51) **Int. Cl.**

A01N 25/26 (2006.01)
A01N 43/48 (2006.01)
A01N 43/78 (2006.01)

(52) **U.S. Cl.** 504/100; 504/253; 504/266

(58) **Field of Classification Search** 514/229.2;
504/266, 100, 253
See application file for complete search history.

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Primary Examiner—Alton Pryor

(74) *Attorney, Agent, or Firm*—Jacqueline Haley

(57) **ABSTRACT**

There is now described a method of controlling pests with nitroimino- or nitroguanidino-compounds; more specifically a method of controlling pests in and on transgenic crops of useful plants, such as, for example, in crops of maize, cereals, soya beans, tomatoes, cotton, potatoes, rice and mustard, with a nitroimino- or nitroguanidino-compound, especially with thiamethoxam, characterized in that a pesticidal composition comprising a nitroimino- or nitroguanidino-compound in free form or in agrochemically useful salt form and at least one auxiliary is applied to the pests or their environment, in particular to the crop plant itself.

8 Claims, No Drawings

US 7,105,469 B2

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USE OF NEONICOTINOIDS IN PEST CONTROL

This application is a divisional application of U.S. patent application Ser. No. 10/125,136, filed Apr. 18, 2002 now U.S. Pat. No. 6,844,339, which is a continuation of U.S. patent application Ser. No. 09/600,384, filed Sep. 21, 2000 (now abandoned), the contents of which are incorporated herein by reference.

The present invention relates to a method of controlling pests with a nitroimino- or nitroguanidino-compound, especially thiamethoxam; more specifically to a novel method of controlling pests in and on transgenic crops of useful plants with a nitroimino- or nitroguanidino-compound.

Certain pest control methods are proposed in the literature. However, these methods are not fully satisfactory in the field of pest control, which is why there is a demand for providing further methods for controlling and combating pests, in particular insects and representatives of the order Acarina, or for protecting plants, especially crop plants. This object is achieved according to the invention by providing the present method.

The present invention therefore relates to a method of controlling pests in crops of transgenic useful plants, such as, for example, in crops of maize, cereals, soya beans, tomatoes, cotton, potatoes, rice and mustard, characterized in that a pesticidal composition comprising a nitroimino- or nitroguanidino-compound, especially thiamethoxam, imidacloprid, Ti-435 or thiacloprid in free form or in agrochemically useful salt form and at least one auxiliary is applied to the pests or their environment, in particular to the crop plant itself; to the use of the composition in question and to propagation material of transgenic plants which has been treated with it.

Surprisingly, it has now emerged that the use of a nitroimino- or nitroguanidino-compound for controlling pests on transgenic useful plants which contain—for instance—one or more genes expressing a pesticidally, particularly insecticidally, acaricidally, nematocidally or fungicidally active ingredient, or which are tolerant against herbicides or resistant against the attack of fungi, has a synergistic effect. It is highly surprising that the use of a nitroimino- or nitroguanidino-compound in combination with a transgenic plant exceeds the additive effect, to be expected in principle, on the pests to be controlled and thus extends the range of action of the nitroimino- or nitroguanidino-compound and of the active principle expressed by the transgenic plant in particular in two respects:

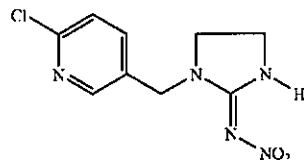
In particular, it has been found, surprisingly, that within the scope of invention the pesticidal activity of a nitroimino- or nitroguanidino-compound in combination with the effect expressed by the transgenic useful plant, is not only additive in comparison with the pesticidal activities of the nitroimino- or nitroguanidino-compound alone and of the transgenic crop plant alone, as can generally be expected, but that a synergistic effect is present. The term "synergistic", however, is in no way to be understood in this connection as being restricted to the pesticidal activity, but the term also refers to other advantageous properties of the method according to the invention compared with the nitroimino- or nitroguanidino-compound and the transgenic useful plant alone. Examples of such advantageous properties which may be mentioned are: extension of the pesticidal spectrum of action to other pests, for example to resistant strains; reduction in the application rate of the nitroimino- or nitroguanidino-compound, or sufficient control of the pests with the aid of the compositions according to the invention

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even at an application rate of the nitroimino- or nitroguanidino-compound alone and the transgenic useful plant alone are entirely ineffective; enhanced crop safety; improved quality of produce such as higher content of nutrient or oil, better fiber quality, enhanced shelf life, reduced content of toxic products such as mycotoxins, reduced content of residues or unfavorable constituents of any kind or better digestibility; improved tolerance to unfavorable temperatures, draughts or salt content of water; enhanced assimilation rates such as nutrient uptake, water uptake and photosynthesis; favorable crop properties such as altered leaf area, reduced vegetative growth, increased yields, favorable seed shape/seed thickness or germination properties, altered colonisation by saprophytes or epiphytes, reduction of senescence, improved phytoalexin production, improved or accelerated ripening, flower set increase, reduced boll fall and shattering, better attraction to beneficials and predators, increased pollination, reduced attraction to birds; or other advantages known to those skilled in the art.

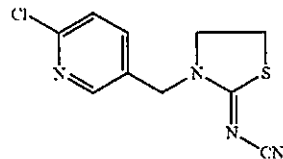
Nitroimino- and nitroguanidino-compounds, such as thiamethoxam (5-(2-Chlorthiazol-5-ylmethyl)-3-methyl-4-nitroimino-perhydro-1,3,5-oxadiazin), are known from EP-A-0'580'553. Within the scope of invention thiamethoxam is preferred.

Also preferred within the scope of invention is imidacloprid of the formula



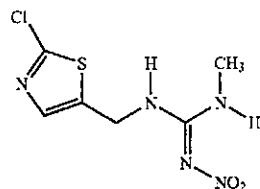
known from The Pesticide Manual, 10th Ed. (1991), The British Crop Protection Council, London, page 591;

also preferred is Thiacloprid of the formula



known from EP-A-235'725;

also preferred is the compound of the formula



known as Ti-435 (clothianidin) from EP-A-376'279

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The agrochemically compatible salts of the nitroimino- or nitroguanidino-compounds are, for example, acid addition salts of inorganic and organic acids, in particular of hydrochloric acid, hydrobromic acid, sulfuric acid, nitric acid, perchloric acid, phosphoric acid, formic acid, acetic acid, trifluoroacetic acid, oxalic acid, malonic acid, toluene-sulfonic acid or benzoic acid. Preferred within the scope of the present invention is a composition known per se which comprises, as active ingredient, thiamethoxam and imidacloprid, each in the free form, especially thiamethoxam.

The transgenic plants used according to the invention are plants, or propagation material thereof, which are transformed by means of recombinant DNA technology in such a way that they are for instance capable of synthesizing selectively acting toxins as are known, for example, from toxin-producing in vertebrates, especially of the phylum Arthropoda, as can be obtained from *Bacillus thuringiensis* strains; or as are known from plants, such as lectins; or in the alternative capable of expressing a herbicidal or fungicidal resistance. Examples of such toxins, or transgenic plants which are capable of synthesizing such toxins, have been disclosed, for example, in EP-A-0 374 753, WO 93/07278, WO 95/34656, EP-A-0 427 529 and EP-A-451 878 and are incorporated by reference in the present application.

The methods for generating such transgenic plants are widely known to those skilled in the art and described, for example, in the publications mentioned above.

The toxins which can be expressed by such transgenic plants include, for example, toxins, such as proteins which have insecticidal properties and which are expressed by transgenic plants, for example *Bacillus cereus* proteins or

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Bacillus popilliae proteins; or *Bacillus thuringiensis* endotoxins (B.t.), such as CryIA(a), CryIA(b), CryIA(c), CryIIA, CryIIIA, CryIIIB2 or CytA; VIP1; VIP2; VIP3; or insecticidal proteins of bacteria colonising nematodes like *Photobacterium* spp or *Xenorhabdus* spp such as *Photobacterium luminescens*, *Xenorhabdus* nematophilus etc.; proteinase inhibitors, such as trypsin inhibitors, serine protease inhibitors, patatin, cystatin, papain inhibitors; ribosome-inactivating proteins (RIP), such as ricin, maize RIP, abrin, luffin, saporin or bryodin; plant lectins such as pea lectins, barley lectins or snowdrop lectins; or agglutinins; toxins produced by animals, such as scorpion toxins, spider venoms, wasp venoms and other insect-specific neurotoxins; steroid metabolism enzymes, such as 3-hydroxysteroid oxidase, ecdysteroid UDP-glycosyl transferase, cholesterol oxidases, ecdysone inhibitors, HMG-CoA reductase, ion channel blockers such as sodium and calcium, juvenile hormone esterase, diuretic hormone receptors, stilbene synthase, bibenzyl synthase, chitinases and glucanases.

Examples of known transgenic plants which comprise one or more genes which encode insecticidal resistance and express one or more toxins are the following: KnockOut® (maize), YieldGard® (maize), NuCOTN 33B® (cotton), Boligard® (cotton), NewLeaf® (potatoes), NatureGard® and Protecta®.

The following tables comprise further examples of targets and principles and crop phenotypes of transgenic crops which show tolerance against pests mainly insects, mites, nematodes, virus, bacteria and diseases or are tolerant to specific herbicides or classes of herbicides.

TABLE A1

Crop: Maize	
Effected target or expressed principle(s)	Crop phenotype/ Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxyalkanoic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaclortol, Trioxes such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufofenate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenoxylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1	Xenobiotics and herbicides such as Sulfonylureas
Dimboa biosynthesis (Bx1 gene)	<i>Helminthosporium turcicum</i> , <i>Rhizoctonia maydis</i> , <i>Diplodia maydis</i> , <i>Ostrinia nubilalis</i> , <i>Lepidoptera</i> sp.
CMIII (small basic maize seed peptide)	plant pathogens eg. <i>Fusarium</i> , <i>Alternaria</i> , <i>Sclerotinia</i>
Corn-SAFP (zeamatin)	plant pathogens eg. <i>Fusarium</i> , <i>Alternaria</i> , <i>Sclerotinia</i> , <i>Rhizoctonia</i> , <i>Chaetomium</i> , <i>Phycomyces</i>
Hm1 gene	<i>Cochliobolus</i>
Chitinases	plant pathogens
Glucanases	plant pathogens

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TABLE A1-continued

Crop: Maize	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Coat proteins	viruses such as maize dwarf mosaic virus, maize chlorotic dwarf virus
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils
3-Hydroxysteroid oxidase	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils
Peroxidase	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor (LAPI)	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils
Linonene synthase	corn rootworms
Lectines	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils
Protease Inhibitors eg. cystatin, patatin, virgiferin, CPTI	weevils, corn rootworm
ribosome inactivating protein	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils
maize 5C9 polypeptide	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils
HMG-CoA reductase	lepidoptera, coleoptera, diptera, nematodes, eg. <i>osirinia nubilalis</i> , <i>heliopsis zea</i> , ammyworms eg. <i>spodoptera frugiperda</i> , corn rootworms, <i>sesamia</i> sp., black cutworm, asian corn borer, weevils

TABLE A2

Crop: Wheat	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
Acetyl-CoA Carboxylase (ACCase)	Aryloxyphenoxyalkanoic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaflutol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides.

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TABLE A2-continued

<u>Crop Wheat</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Cytochrome P450 eg. P450 SU1	phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc. Xenobiotics and herbicides such as Sulfonyleureas
Antifungal polypeptide AlyAFP	plant pathogens eg. <i>septoria</i> and <i>fusarium</i>
glucose oxidase	plant pathogens eg. <i>fusarium</i> , <i>septoria</i>
pyrrolinitrin synthesis genes	plant pathogens eg. <i>fusarium</i> , <i>septoria</i>
serine/threonine kinases	plant pathogens eg. <i>fusarium</i> , <i>septoria</i> and other diseases
Hypersensitive response eliciting polypeptide	plant pathogens eg. <i>fusarium</i> , <i>septoria</i> and other diseases
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	plant pathogens
Glucanases	plant pathogens
double stranded ribonuclease	viruses such as BYDV and MSMV
Coat proteins	viruses such as BYDV and MSMV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes,
3-Hydroxysteroid oxidase	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes,
Peroxidase	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes,
Aminopeptidase inhibitors eg. L-leucine aminopeptidase inhibitor	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes,
Lectines	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes, aphids
Protease Inhibitors eg. cystatin, patatin, virgiferin, CPTI	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes, aphids
ribosome inactivating protein	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes, aphids
HMG-CoA reductase	<i>lepidoptera</i> , <i>coleoptera</i> , <i>diptera</i> , nematodes, eg. <i>ostrinia nubilalis</i> , <i>heliethis zea</i> , armyworms eg. <i>spadoptera frugiperda</i> , corn rootworms, <i>scsania</i> sp., black cutworm, asian corn borer, weevils

TABLE A3

<u>Crop Barley</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (AL.S)	Sulfonyleureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxymethanecarboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaclortol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1	Xenobiotics and herbicides such as Sulfonyleureas
Antifungal polypeptide AlyAFP	plant pathogens eg. <i>septoria</i> and <i>fusarium</i>
glucose oxidase	plant pathogens eg. <i>fusarium</i> , <i>septoria</i>

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TABLE A3-continued

<u>Crop Barley</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
pyrrolnitrin synthesis genes	plant pathogens eg. <i>fusarium</i> , <i>septoria</i>
serine/threonine kinases	plant pathogens eg. <i>fusarium</i> , <i>septoria</i> and other diseases
Hypersensitive response eliciting polypeptide	plant pathogens eg. <i>fusarium</i> , <i>septoria</i> and other diseases
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	plant pathogens
Glucanases	plant pathogens
double stranded ribonuclease	viruses such as BYDV and MSMV
Coat proteins	viruses such as BYDV and MSMV
<i>Bacillus thuringiensis</i> toxins. VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	lepidoptera, coleoptera, diptera, nematodes.
3-Hydroxysteroid oxidase	lepidoptera, coleoptera, diptera, nematodes.
Peroxidase	lepidoptera, coleoptera, diptera, nematodes.
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, coleoptera, diptera, nematodes.
Lectines	lepidoptera, coleoptera, diptera, nematodes, aphids
Protease Inhibitors eg. cystatin, patatin, vigniferin, CPTI	lepidoptera, coleoptera, diptera, nematodes, aphids
ribosome inactivating protein	lepidoptera, coleoptera, diptera, nematodes, aphids
HMG-CoA reductase	lepidoptera, coleoptera, diptera, nematodes, aphids

TABLE A4

<u>Crop Rice</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
Acetyl/CoA Carboxylase (ACCase)	Aryloxyphenoxymethanecarboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaclortol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Gluconate synthetase	Gluconate, Bialaphos
Adenylosuccinate lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenoxypyrate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1	Xenobiotics and herbicides such as Sulfonylureas
Antifungal polypeptide AlyAFP	plant pathogens
glucose oxidase	plant pathogens
pyrrolnitrin synthesis genes	plant pathogens
serine/threonine kinases	plant pathogens
Phenylalanine ammonia lyase (PAL)	plant pathogens eg bacterial leaf blight and rice blast, inducible
phytoalexins	plant pathogens eg bacterial leaf blight and rice blast
B-1,3-glucanase antisense	plant pathogens eg bacterial leaf blight and rice blast
receptor kinase	plant pathogens eg bacterial leaf blight and rice blast
Hypersensitive response eliciting	plant pathogens

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TABLE A4-continued

<u>Crop Rice</u>	
Effect of target or expressed principle(s)	Crop phenotype/Tolerance to
polypeptide	
Systemic acquires resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	plant pathogens eg bacterial leaf blight and rice blast
Gluconases	plant pathogens
double stranded ribonuclease	viruses such as BYDV and MSMV
Coat proteins	viruses such as BYDV and MSMV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper
3-Hydroxysteroid oxidase	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper
Peroxidase	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper
Lectines	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper
Protease Inhibitors,	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper
ribosome inactivating protein	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper
HMG-CoA reductase	lepidoptera eg. stemborer, coleoptera eg rice water weevil, diptera, rice hoppers eg brown rice hopper

TABLE A5

<u>Crop Soya</u>	
Effect of target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazopyrimidines, Pyrimidylbenzoates, Phthalides
Acetyl CoA Carboxylase (ACCase)	Aryloxyphenoxycarboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaflutol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufofenate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenoxylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or selection	Xenobiotics and herbicides such as Sulfonylureas
Antifungal polypeptide AlyAFP	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
oxalate oxidase	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
glucose oxidase	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
pyrrolinitrin synthesis genes	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot

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TABLE A5-continued

Crop Soya	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
serine/threonine kinases	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
phytoalexins	plant pathogens eg bacterial leaf blight and rice blast
B-1,3-glucanase antisense	plant pathogens eg bacterial leaf blight and rice blast
receptor kinase	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
Hypersensitive response eliciting polypeptide	plant pathogens
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
Glucanases	bacterial and fungal pathogens such as <i>fusarium</i> , <i>sclerotinia</i> , stemrot
double stranded ribonuclease	viruses such as BPMV and SbMV
Coat proteins	viruses such as BYDV and MSMV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	lepidoptera, coleoptera, aphids
3-Hydroxysteroid oxidase	lepidoptera, coleoptera, aphids
Peroxiidase	lepidoptera, coleoptera, aphids
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, coleoptera, aphids
Lectines	lepidoptera, coleoptera, aphids
Protease Inhibitors eg virgiferin	lepidoptera, coleoptera, aphids
ribosome inactivating protein	lepidoptera, coleoptera, aphids
HMG-CoA reductase	lepidoptera, coleoptera, aphids
Barnase	nematodes eg root knot nematodes and cyst nematodes
Cyst nematode hatching stimulus	cyst nematodes
Antifeeding principles	nematodes eg root knot nematodes and cyst nematodes

TABLE A6

Crop Potatoes	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylhydroxybenzoates, Phthalides
Acetyl-CoA Carboxylase (ACCase)	Aryloxyphenoxymethanecarboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaflutol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or selection	Xenobiotics and herbicides such as Sulfonylureas
Polyphenol oxidase or Polyphenol oxidase antisense	blackspot bruise
Metallothionein	bacterial and fungal pathogens such as phytophthora
Ribonuclease	<i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>

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TABLE A6-continued

Crop Potatoes	
Effectuated target or expressed principle(s)	Crop phenotype/tolerance to
Antifungal polypeptide Aly-APF	bacterial and fungal pathogens such as phytophthora
oxalate oxidase	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
glucose oxidase	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
pyrrolinitrin synthesis genes	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
serine/threonine kinases	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
Cecropin B	bacteria such as <i>Corynebacterium sepeconomicum</i> , <i>Erwinia carotovora</i>
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
phytoalexins	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
B-1,3-glucanase antisense	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
receptor kinase	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
Hypersensitive response eliciting polypeptide	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
Systemic acquires resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
Barnase	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
Disease resistance response gene 49	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
trans aldolase antisense	blackspots
Glucanases	bacterial and fungal pathogens such as <i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
double stranded ribonuclease	viruses such as PLRV, PVY and TRV
Coat proteins	viruses such as PLRV, PVY and TRV
17 kDa or 60 kDa protein	viruses such as PLRV, PVY and TRV
Nuclear inclusion proteins eg. a or b	viruses such as PLRV, PVY and TRV
Pseudoubiquitin	viruses such as PLRV, PVY and TRV
Replicase	viruses such as PLRV, PVY and TRV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	<i>coleoptera</i> eg Colorado potato beetle, aphids
3-Hydroxysteroid oxidase	<i>coleoptera</i> eg Colorado potato beetle, aphids
Peroxidase	<i>coleoptera</i> eg Colorado potato beetle, aphids
Aminopeptidase inhibitors eg. leucine aminopeptidase inhibitor	<i>coleoptera</i> eg Colorado potato beetle, aphids
stilbene synthase	<i>coleoptera</i> eg Colorado potato beetle, aphids
Lectines	<i>coleoptera</i> eg Colorado potato beetle, aphids
Protease Inhibitors eg cystatin, patatin	<i>coleoptera</i> eg Colorado potato beetle, aphids
ribosome inactivating protein	<i>coleoptera</i> eg Colorado potato beetle, aphids
HMG-CoA reductase	<i>coleoptera</i> eg Colorado potato beetle, aphids
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
Antifeeding principles	nematodes eg root knot nematodes and cyst nematodes

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TABLE A7

Crop Tomatoes

Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
Acetyl-CoA Carboxylase (ACC:ase)	Aryloxyphenoxyalkanoic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxachlortol, Trienes such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or selection	Xenobiotics and herbicides such as Sulfonylureas
Polyphenol oxidase or Polyphenol oxidase antisense	blackspot bruise
Metallothionein	bacterial and fungal pathogens such as phytophthora
Ribonuclease	<i>Phytophthora</i> , <i>Verticillium</i> , <i>Rhizoctonia</i>
Antifungal polypeptide AlyAFP	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
oxalate oxidase	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
glucose oxidase	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
pyrrolinitrin synthesis genes	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
serine/threonine kinases	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Cecropin B	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Cf genes eg. Cf 9 Cf 5 Cf 4 Cf 2	leaf mould
Osmotin	<i>alternaria solani</i>
Alpha Hordothionin	bacteria
Systemin	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Polygalacturonase inhibitors	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Prf regulatory gene	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
12 <i>Fusarium</i> resistance locus	<i>fusarium</i>
phytoalexins	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot,

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TABLE A7-continued

Crop Tomatoes	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
	powdery mildew, crown rot, leaf mould etc.
B-1,3-glucanase antisense	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
receptor kinase	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Hypersensitive response eliciting polypeptide	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Barnase	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
Glucanases	bacterial and fungal pathogens such as bacterial speck, <i>fusarium</i> , soft rot, powdery mildew, crown rot, leaf mould etc.
double stranded ribonuclease	viruses such as PLRV, PVY and ToMoV
Coat proteins	viruses such as PLRV, PVY and ToMoV
17 kDa or 60 kDa protein	viruses such as PLRV, PVY and ToMoV
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses such as PLRV, PVY and ToMoV
Pseudobiquitin	TRV
Replicase	viruses such as PLRV, PVY and ToMoV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	viruses such as PLRV, PVY and ToMoV
3-Hydroxysteroid oxidase	lepidoptera eg <i>heliothis</i> , whiteflies aphids
Peroxidase	lepidoptera eg <i>heliothis</i> , whiteflies aphids
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera eg <i>heliothis</i> , whiteflies aphids
Lectines	lepidoptera eg <i>heliothis</i> , whiteflies aphids
Protease Inhibitors eg cystatin, patatin	lepidoptera eg <i>heliothis</i> , whiteflies aphids
ribosome inactivating protein	lepidoptera eg <i>heliothis</i> , whiteflies aphids
stilbene synthase	lepidoptera eg <i>heliothis</i> , whiteflies aphids
HMG-CoA reductase	lepidoptera eg <i>heliothis</i> , whiteflies aphids
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
Antifeeding principles	nematodes eg root knot nematodes and cyst nematodes

TABLE A8

Crop Peppers	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxyalkanoic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaflortol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthraniolate Synthase	Inhibitors of tryptophan synthesis and

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TABLE A8-continued

<u>Crop Peppers</u>	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Nitrilase	catabolism 3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or selection	Xenobiotics and herbicides such as Sulfonylureas
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial and fungal pathogens
Metallothionein	bacterial and fungal pathogens
Ribonuclease	bacterial and fungal pathogens
Antifungal polypeptide AlyAFP	bacterial and fungal pathogens
oxalate oxidase	bacterial and fungal pathogens
glucose oxidase	bacterial and fungal pathogens
pyrrolitrin synthesis genes	bacterial and fungal pathogens
serine/threonine kinases	bacterial and fungal pathogens
Cecropin B	bacterial and fungal pathogens rot, leaf mould etc.
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens
Cf genes eg. Cf 9 Cf 5 Cf 4 Cf 2	bacterial and fungal pathogens
Osmotin	bacterial and fungal pathogens
Alpha Glutathionein	bacterial and fungal pathogens
Systemin	bacterial and fungal pathogens
Polygalacturonase inhibitors	bacterial and fungal pathogens
Prf regulatory gene	bacterial and fungal pathogens
12 <i>Fusarium</i> resistance locus	<i>fusarium</i>
phytoalexins	bacterial and fungal pathogens
B-1,3-glucanase antisense	bacterial and fungal pathogens
receptor kinase	bacterial and fungal pathogens
Hypersensitive response eliciting polypeptide	bacterial and fungal pathogens
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	bacterial and fungal pathogens
Barnase	bacterial and fungal pathogens
Glucanases	bacterial and fungal pathogens
double stranded ribonuclease	viruses such as CMV, TEV
Coat proteins	viruses such as CMV, TEV
17 kDa or 60 kDa protein	viruses such as CMV, TEV
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses such as CMV, TEV
Pseudobiquitin	viruses such as CMV, TEV
Replicase	viruses such as CMV, TEV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	<i>lepidoptera</i> , whiteflies aphids
3-Hydroxysteroid oxidase	<i>lepidoptera</i> , whiteflies aphids
Peroxidase	<i>lepidoptera</i> , whiteflies aphids
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	<i>lepidoptera</i> , whiteflies aphids
Leotines	<i>lepidoptera</i> , whiteflies aphids
Protease Inhibitors eg cystatin, patatin	<i>lepidoptera</i> , whiteflies aphids
ribosome inactivating protein	<i>lepidoptera</i> , whiteflies aphids
stilbene synthase	<i>lepidoptera</i> , whiteflies aphids
HMGR-CoA reductase	<i>lepidoptera</i> , whiteflies aphids
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
Antifeeding principles	nematodes eg root knot nematodes and cyst nematodes

TABLE A9

<u>Crop Grapes</u>	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides

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TABLE A9-continued

<u>Crop Grapes</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxyalkanoic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaclortol, Trienes such as mesotrione or silcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or selection	Xenobiotics and herbicides such as Sulfonylureas
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Metallothionein	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Ribonuclease	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Antifungal polypeptide AlyAFP	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
oxalate oxidase	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
glucose oxidase	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
pyrrolnitrin synthesis genes	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
serine/threonine kinases	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Cecropin B	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Cf genes eg. Cf 9 Cf5 Cf4 Cf2	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Osmotin	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Alpha Glutathionein	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Systemin	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Polygalacturonase inhibitors	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Prf regulatory gene	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
phytoalexins	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
B-1,3-glucanase antisense	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
receptor kinase	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Hypersensitive response eliciting polypeptide	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Systemic acquires resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Barnase	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
Glucanases	bacterial and fungal pathogens like <i>Botrytis</i> and powdery mildew
double stranded ribonuclease	viruses
Coat proteins	viruses
17 kDa or 60 kDa protein	viruses
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses

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TABLE A9-continued

<u>Crop Grapes</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Pseudoubiquitin	viruses
Replicase	viruses
<i>Bacillus thuringiensis</i> toxins, VIP 3,	lepidoptera, aphids
<i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and	
<i>Xenorhabdus</i> toxins	
3-Hydroxysteroid oxidase	lepidoptera, aphids
Peroxidase	lepidoptera, aphids
Aminopeptidase inhibitors eg. Leucine	lepidoptera, aphids
aminopeptidase inhibitor	
Leetines	lepidoptera, aphids
Protease Inhibitors eg cystatin, patatin	lepidoptera, aphids
ribosome inactivating protein	lepidoptera, aphids
stilbene synthase	lepidoptera, aphids, diseases
HMG-CoA reductase	lepidoptera, aphids
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and
	cyst nematodes or general diseases
CBI	root knot nematodes
Antifeeding principles	nematodes eg root knot nematodes or
	root cyst nematodes

TABLE A10

<u>crop Oil Seed rape</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines,
	Pyrimidylxybenzoates, Phthalides
Acetyl/CoA Carboxylase (ACCase)	Aryloxyphenoxymethanecarboxylic acids,
	cyclohexanediols
Hydroxyphenylpyruvate dioxygenase	Isoxazoles such as Isoxaflutol or
(HPPD)	Isoxaflutol, Triones such as
	mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and
	catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such
	as Bromoxynil and loxynil
5-Enolpyruvyl-3-phosphoshikimate	Glyphosate or sulfosate
Synthase (EPSPS)	
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides,
	phenylpyrazoles, pyridin derivatives,
	phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or	Xenobiotics and herbicides such as
selection	Sulfonylureas
Polyphenol oxidase or Polyphenol	bacterial and fungal pathogens like
oxidase antisense	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Metallothionein	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Ribonuclease	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Antifungal polypeptide AlyAFP	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
oxalate oxidase	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
glucose oxidase	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
pyrolnitrin synthesis genes	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
serine/threonine kinases	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Cecropin B	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens like
	<i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>

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TABLE A10-continued

crop Oil Seed rape	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Cf genes eg. Cf 9 Cf5 Cf4 Cf2	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Osmotin	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Alpha Hordothionin	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Systemin	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Polygalacturonase inhibitors	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Prf regulatory gene	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
phytoalexins	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
B-1,3-glucanase antisense	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
receptor kinase	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Hypersensitive response eliciting polypeptide	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
Barnase	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i> , nematodes
Glucanases	bacterial and fungal pathogens like <i>Cylindrosporium</i> , <i>Phoma</i> , <i>Sclerotinia</i>
double stranded ribonuclease	viruses
Coat proteins	viruses
17 kDa or 60 kDa protein	viruses
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses
Pseudobiquitin	viruses
Replicase	viruses
<i>Bacillus thuringiensis</i> toxins, VIP 3.	lepidoptera, aphids
<i>Bacillus cereus</i> toxins, Photorubdus and Xenorhabdus toxins	
3-Hydroxysteroid oxidase	lepidoptera, aphids
Peroxidase	lepidoptera, aphids
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids
Leotines	lepidoptera, aphids
Protease Inhibitors eg. cystatin, patatin, CPII	lepidoptera, aphids
ribosome inactivating protein	lepidoptera, aphids
stilbene synthase	lepidoptera, aphids, diseases
HMGR-CoA reductase	lepidoptera, aphids
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
CBI	root knot nematodes
Antifeeding principles induced at a nematode feeding site	nematodes eg root knot nematodes, root cyst nematodes

TABLE A11

Crop Brassica vegetable (cabbage, brussel sprouts, broccoli etc.)

Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxyalkane carboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxachlorol, Triones such as mesotrione or sulcotrione

TABLE A11-continued

Crop Brassica vegetable (cabbage, brussel sprouts, broccoli etc.)

Effected target or expressed principle(s)	Crop phenotype/Tolerance to
60 Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
65 Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis

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TABLE A11-continued

<u>Crop Brassica vegetable (cabbage, brussel sprouts, broccoli etc.)</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Anthranelate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenoxypyrate, oxadiazoles etc.
Protoporphyrinogen oxidase (PROTOX)	Xenobiotics and herbicides such as Sulfonylureas
Cytochrome P450 eg. P450 SU1 or selection	bacterial and fungal pathogens
Polyphenol oxidase or Polyphenol oxidase antisense	
Metallothionein	bacterial and fungal pathogens
Ribonuclease	bacterial and fungal pathogens
Antifungal polypeptide	bacterial and fungal pathogens
AlyAFP	
oxalate oxidase	bacterial and fungal pathogens
glucose oxidase	bacterial and fungal pathogens
pyrrolnitrin synthesis genes	bacterial and fungal pathogens
serine/threonine kinases	bacterial and fungal pathogens
Cecropin B	bacterial and fungal pathogens
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens
Cf genes eg. Cf9 Cf5 Cf4 Cf2	bacterial and fungal pathogens
Osmotin	bacterial and fungal pathogens
Alpha Hordothionin	bacterial and fungal pathogens
Systemin	bacterial and fungal pathogens
Polygalacturonase inhibitors	bacterial and fungal pathogens
Prf regulatory gene	bacterial and fungal pathogens
phytoalexins	bacterial and fungal pathogens
B-1,3-glucanase antisense	bacterial and fungal pathogens
receptor kinase	bacterial and fungal pathogens
Hypersensitive response eliciting polypeptide	bacterial and fungal pathogens
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Chitinases	bacterial and fungal pathogens
Barnase	bacterial and fungal pathogens
Glucanases	bacterial and fungal pathogens
double stranded ribonuclease	viruses
Coat proteins	viruses
17 kDa or 60 kDa protein	viruses
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses
Pseudobiquitin	viruses
Replicase	viruses
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, Photobabidus and <i>Xenorhabdus</i> toxins	lepidoptera, aphids
3-Hydroxysteroid oxidase	lepidoptera, aphids
Peroxidase	lepidoptera, aphids
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids
Lectines	lepidoptera, aphids
Protease Inhibitors eg cystatin, patatin, CPTI	lepidoptera, aphids
ribosome inactivating protein	lepidoptera, aphids
stilbene synthase	lepidoptera, aphids, diseases
HMG-CoA reductase	lepidoptera, aphids
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
CRI	root knot nematodes
Antifeeding principles	nematodes eg root knot nematodes,

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TABLE A11-continued

<u>Crop Brassica vegetable (cabbage, brussel sprouts, broccoli etc.)</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
induced at a nematode feeding site	root cyst nematodes
TABLE A12	
<u>Crop Pome fruits eg apples, pears</u>	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxymethanecarboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxachlorol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranelate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenoxypyrate, oxadiazoles etc.
Protoporphyrinogen oxidase (PROTOX)	Xenobiotics and herbicides such as Sulfonylureas
Cytochrome P450 eg. P450 SU1 or selection	bacterial and fungal pathogens like apple scab or fireblight
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial and fungal pathogens like apple scab or fireblight
Metallothionein	bacterial and fungal pathogens like apple scab or fireblight
Ribonuclease	bacterial and fungal pathogens like apple scab or fireblight
Antifungal polypeptide AlyAFP	bacterial and fungal pathogens like apple scab or fireblight
oxalate oxidase	bacterial and fungal pathogens like apple scab or fireblight
glucose oxidase	bacterial and fungal pathogens like apple scab or fireblight
pyrrolnitrin synthesis genes	bacterial and fungal pathogens like apple scab or fireblight
serine/threonine kinases	bacterial and fungal pathogens like apple scab or fireblight
Cecropin B	bacterial and fungal pathogens like apple scab or fireblight
Phenylalanine ammonia lyase (PAL)	bacterial and fungal pathogens like apple scab or fireblight
Cf genes eg. Cf9 Cf5 Cf4 Cf2	bacterial and fungal pathogens like apple scab or fireblight
Osmotin	bacterial and fungal pathogens like apple scab or fireblight
Alpha Hordethionin	bacterial and fungal pathogens like apple scab or fireblight
Systemin	bacterial and fungal pathogens like apple scab or fireblight
Polygalacturonase inhibitors	bacterial and fungal pathogens like apple scab or fireblight
Prf regulatory gene	bacterial and fungal pathogens like apple scab or fireblight

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TABLE A12-continued

<u>Crop Pome fruits eg apples, pears</u>	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
phytoalexins	bacterial and fungal pathogens like apple scab or fireblight
B-1,3-glucanase antisense	bacterial and fungal pathogens like apple scab or fireblight
receptor kinase	bacterial and fungal pathogens like apple scab or fireblight
Hypersensitive response eliciting polypeptide	bacterial and fungal pathogens like apple scab or fireblight
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Lytic protein	bacterial and fungal pathogens like apple scab or fireblight
Lysozym	bacterial and fungal pathogens like apple scab or fireblight
Chitinases	bacterial and fungal pathogens like apple scab or fireblight
Barnase	bacterial and fungal pathogens like apple scab or fireblight
Glucanases	bacterial and fungal pathogens like apple scab or fireblight
double stranded ribonuclease	viruses
Coat proteins	viruses
17 kDa or 60 kDa protein	viruses
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses
Pseudobiquitin	viruses
Replicase	viruses
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	lepidoptera, aphids, mites
3-Hydroxysteroid oxidase	lepidoptera, aphids, mites
Peroxidase	lepidoptera, aphids, mites
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids, mites
Lectines	lepidoptera, aphids, mites
Protease inhibitors eg cystatin, patatin, CPTI	lepidoptera, aphids, mites
ribosome inactivating protein	lepidoptera, aphids, mites
stilbene synthase	lepidoptera, aphids, diseases, mites
HMG-CoA reductase	lepidoptera, aphids, mites
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
CBI	root knot nematodes
Antifeeding principles induced at a nematode feeding site	nematodes eg root knot nematodes, root cyst nematodes

TABLE A13

<u>Crop Melons</u>	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylbenzoates, Phthalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxyalkanoic acid, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaclorol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis

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TABLE A13-continued

<u>Crop Melons</u>	
Effectuated target or expressed principle(s)	Crop phenotype/Tolerance to
5 Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
10 5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Protoporphyrinogen oxidase (PROTOX)	Xenobiotics and herbicides such as Sulfonylureas
15 Cytochrome P450 eg. P450 SU1 or selection	bacterial or fungal pathogens like phytophthora
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial or fungal pathogens like phytophthora
20 Metallothionein	bacterial or fungal pathogens like phytophthora
Ribonuclease	bacterial or fungal pathogens like phytophthora
Antifungal polypeptide AlyAFP	bacterial or fungal pathogens like phytophthora
25 oxalate oxidase	bacterial or fungal pathogens like phytophthora
glucose oxidase	bacterial or fungal pathogens like phytophthora
pyrrolinitrin synthesis genes	bacterial or fungal pathogens like phytophthora
serine/threonine kinases	bacterial or fungal pathogens like phytophthora
30 Cocorin B	bacterial or fungal pathogens like phytophthora
Phenylalanine ammonia lyase (PAL)	bacterial or fungal pathogens like phytophthora
Cf genes eg. Cf 9 Cf 5 Cf 4 Cf 2	bacterial or fungal pathogens like phytophthora
35 Osmotin	bacterial or fungal pathogens like phytophthora
Alpha Hordothionin	bacterial or fungal pathogens like phytophthora
Systemin	bacterial or fungal pathogens like phytophthora
40 Polygalacturonase inhibitors	bacterial or fungal pathogens like phytophthora
Prf regulatory gene	bacterial or fungal pathogens like phytophthora
phytoalexins	bacterial or fungal pathogens like phytophthora
45 B-1,3-glucanase antisense	bacterial or fungal pathogens like phytophthora
receptor kinase	bacterial or fungal pathogens like phytophthora
Hypersensitive response eliciting polypeptide	bacterial or fungal pathogens like phytophthora
50 Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Lytic protein	bacterial or fungal pathogens like phytophthora
Lysozym	bacterial or fungal pathogens like phytophthora
55 Chitinases	bacterial or fungal pathogens like phytophthora
Barnase	bacterial or fungal pathogens like phytophthora
Glucanases	bacterial or fungal pathogens like phytophthora
60 double stranded ribonuclease	viruses as CMV, PRSV, WMV2, SMV, ZYMV
Coat proteins	viruses as CMV, PRSV, WMV2, SMV, ZYMV
17 kDa or 60 kDa protein	viruses as CMV, PRSV, WMV2, SMV, ZYMV
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses as CMV, PRSV, WMV2, SMV, ZYMV
65 Pseudobiquitin	viruses as CMV, PRSV, WMV2, SMV, ZYMV

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TABLE A13-continued

Crop Melons	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Replicase	SMV, ZYMV viruses as CMV, PRSV, WMV2, SMV, ZYMV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, Photorhabdus and <i>Xenorhabdus</i> toxins	lepidoptera, aphids, mites
3-Hydroxysteroid oxidase	lepidoptera, aphids, mites, whitefly
Peroxidase	lepidoptera, aphids, mites, whitefly
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids, mites, whitefly
Lectines	lepidoptera, aphids, mites, whitefly
Protease Inhibitors eg cystatin, patatin, CPTI, virgiferin	lepidoptera, aphids, mites, whitefly
ribosome inactivating protein	lepidoptera, aphids, mites, whitefly
stilbene synthase	lepidoptera, aphids, mites, whitefly
HMG-CoA reductase	lepidoptera, aphids, mites, whitefly
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
CBI	root knot nematodes
Antifeeding principles induced at a nematode feeding site	nematodes eg root knot nematodes, root cyst nematodes

TABLE A14

Crop Banana	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phtalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxyalkancarboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaflutol, Triones such as mesotrione or sulcotrione
Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthraniolate Synthase	Inhibitors of tryptophan syn- thesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or selection	Xenobiotics and herbicides such as Sulfonylureas
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial or fungal pathogens
Metallothionein	bacterial or fungal pathogens
Ribonuclease	bacterial or fungal pathogens
Antifungal polypeptide AlyAFP	bacterial or fungal pathogens
oxalate oxidase	bacterial or fungal pathogens

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TABLE A14-continued

Crop Banana	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
5 glucose oxidase	bacterial or fungal pathogens
pyrrolnitrin synthesis genes	bacterial or fungal pathogens
serine/threonine kinases	bacterial or fungal pathogens
10 Cecropin B	bacterial or fungal pathogens
Phenylalanine ammonia lyase (PAL)	bacterial or fungal pathogens
Cf genes eg. Cf 9 Cf5 Cf4 Cf2	bacterial or fungal pathogens
Osmotin	bacterial or fungal pathogens
Alpha Hordothionin	bacterial or fungal pathogens
15 Systemin	bacterial or fungal pathogens
Polygalacturonase inhibitors	bacterial or fungal pathogens
Prf regulatory gene	bacterial or fungal pathogens
phytoalexins	bacterial or fungal pathogens
B-1,3-glucanase antisense	bacterial or fungal pathogens
receptor kinase	bacterial or fungal pathogens
20 Hypersensitive response eliciting polypeptide	bacterial or fungal pathogens
Systemic acquires resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Lytic protein	bacterial or fungal pathogens
Lysozym	bacterial or fungal pathogens
Chitinases	bacterial or fungal pathogens
25 Barnase	bacterial or fungal pathogens
Glucanases	bacterial or fungal pathogens
double stranded ribonuclease	viruses as Banana bunchy top virus (BBTV)
Coat proteins	viruses as Banana bunchy top virus (BBTV)
30 17 kDa or 60 kDa protein	viruses as Banana bunchy top virus (BBTV)
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses as Banana bunchy top virus (BBTV)
Pseudoubiquitin	viruses as Banana bunchy top virus (BBTV)
35 Replicase	viruses as Banana bunchy top virus (BBTV)
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, Photorhabdus and <i>Xenorhabdus</i> toxins	lepidoptera, aphids, mites, nematodes
3-Hydroxysteroid oxidase	lepidoptera, aphids, mites, nematodes
40 Peroxidase	lepidoptera, aphids, mites, nematodes
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids, mites, nematodes
Lectines	lepidoptera, aphids, mites, nematodes
45 Protease Inhibitors eg cystatin, patatin, CPTI, virgiferin	lepidoptera, aphids, mites, nematodes
ribosome inactivating protein	lepidoptera, aphids, mites, nematodes
stilbene synthase	lepidoptera, aphids, mites, nematodes
50 HMG-CoA reductase	lepidoptera, aphids, mites, nematodes
Cyst nematode hatching stimulus	cyst nematodes
Barnase	nematodes eg root knot nematodes and cyst nematodes
CBI	root knot nematodes
55 Antifeeding principles induced at a nematode feeding site	nematodes eg root knot nematodes, root cyst nematodes

TABLE A15

Crop Cotton	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
60	
65 Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines,

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TABLE A15-continued

Crop Cotton	
Effect of target or expressed principle(s)	Crop phenotype/Tolerance to
AcetylCoA Carboxylase (ACCase)	Pyrimidylbenzoates, Phthalides
Hydroxyphenylpyruvate dioxygenase (HPPD)	Aryloxyphenoxycarboxylic acids, cyclohexanediones
Phosphinothricin acetyl transferase	Isoxazoles such as Isoxaflutol or Isoxaflutol, Triones such as mesotrione or sulcotrione
O-Methyl transferase	Phosphinothricin
Glutamine synthetase	altered lignin levels
Adenylosuccinate Lyase (ADSL)	Glufosinate, Bialaphos
Adenylosuccinate Synthase	Inhibitors of IMP and AMP synthesis
Anthranyl Synthase	Inhibitors of adenylosuccinate synthesis
Nitrilase	Inhibitors of tryptophan synthesis and catabolism
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
Glyphosate oxidoreductase	Glyphosate or sulfosate
Protoporphyrinogen oxidase (PROTOX)	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Cytochrome P450 eg. P450 SU1 or selection	Xenobiotics and herbicides such as Sulfonylureas
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial or fungal pathogens
Metallothionein	bacterial or fungal pathogens
Ribonuclease	bacterial or fungal pathogens
Antifungal polypeptide AlyAFP	bacterial or fungal pathogens
oxalate oxidase	bacterial or fungal pathogens
glucose oxidase	bacterial or fungal pathogens
pyrrolnitrin synthesis genes	bacterial or fungal pathogens
serine/threonine kinases	bacterial or fungal pathogens
Cecropin B	bacterial or fungal pathogens
Phenylalanine ammonia lyase (PAL)	bacterial or fungal pathogens
Cf genes eg. Cf 9 Cf 5 Cf 4 Cf 2	bacterial or fungal pathogens
Osmotin	bacterial or fungal pathogens
Alpha Hordothionin	bacterial or fungal pathogens
Systemin	bacterial or fungal pathogens
Polygalacturonase inhibitors	bacterial or fungal pathogens
Prf regulatory gene	bacterial or fungal pathogens
phytoalexins	bacterial or fungal pathogens
B-1,3-glucanase antisense receptor kinase	bacterial or fungal pathogens
Hypersensitive response eliciting polypeptide	bacterial or fungal pathogens
Systemic acquired resistance (SAR) genes	viral, bacterial, fungal, nematode pathogens
Lytic protein	bacterial or fungal pathogens
Lysozym	bacterial or fungal pathogens
Chitinases	bacterial or fungal pathogens
Barnase	bacterial or fungal pathogens
Glucanases	bacterial or fungal pathogens
double stranded ribonuclease	viruses as wound tumor virus (WTV)
Coat proteins	viruses as wound tumor virus (WTV)
17 kDa or 60 kDa protein	viruses as wound tumor virus (WTV)
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses as wound tumor virus (WTV)
Pseudobiquitin	viruses as wound tumor virus (WTV)
Replicase	viruses as wound tumor virus (WTV)
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, <i>Photorhabdus</i> and <i>Xenorhabdus</i> toxins	lepidoptera, aphids, mites, nematodes, whitefly
3-Hydroxysteroid oxidase	lepidoptera, aphids, mites, nematodes, whitefly

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TABLE A15-continued

Crop Cotton	
Effect of target or expressed principle(s)	Crop phenotype/Tolerance to
5 Peroxidase	lepidoptera, aphids, mites, nematodes, whitefly
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids, mites, nematodes, whitefly
10 Lectines	lepidoptera, aphids, mites, nematodes, whitefly
Protease Inhibitors eg cystatin, patatin, CPTI, virgiferin	lepidoptera, aphids, mites, nematodes, whitefly
ribosome inactivating protein	lepidoptera, aphids, mites, nematodes, whitefly
15 stilbene synthase	lepidoptera, aphids, mites, nematodes, whitefly
HMG-CoA reductase	lepidoptera, aphids, mites, nematodes, whitefly
Cyst nematode hatching stimulus	cyst nematodes
20 Barnase	nematodes eg root knot nematodes and cyst nematodes
CBI	root knot nematodes
Antifeeding principles induced at a nematode feeding site	nematodes eg root knot nematodes, root cyst nematodes

TABLE A16

Crop Sugarcane	
Effect of target or expressed principle(s)	Crop phenotype/Tolerance to
30 Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylbenzoates, Phthalides
35 AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxycarboxylic acids, cyclohexanediones
Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaflutol, Triones such as mesotrione or sulcotrione
40 Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
45 Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranyl Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
50 Glyphosate oxidoreductase	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Protoporphyrinogen oxidase (PROTOX)	Xenobiotics and herbicides such as Sulfonylureas
55 Cytochrome P450 eg. P450 SU1 or selection	bacterial or fungal pathogens
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial or fungal pathogens
Metallothionein	bacterial or fungal pathogens
Ribonuclease	bacterial or fungal pathogens
60 Antifungal polypeptide AlyAFP	bacterial or fungal pathogens
oxalate oxidase	bacterial or fungal pathogens
glucose oxidase	bacterial or fungal pathogens
pyrrolnitrin synthesis genes	bacterial or fungal pathogens
serine/threonine kinases	bacterial or fungal pathogens
Cecropin B	bacterial or fungal pathogens
Phenylalanine ammonia lyase (PAL)	bacterial or fungal pathogens
65 Cf genes eg. Cf 9 Cf 5 Cf 4 Cf 2	bacterial or fungal pathogens

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TABLE A16-continued

Crop Sugarcane	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Osmotin	bacterial or fungal pathogens
Alpha Hordothionin	bacterial or fungal pathogens
Systemin	bacterial or fungal pathogens
Polygalacturonase inhibitors	bacterial or fungal pathogens
Prf regulatory gene	bacterial or fungal pathogens
phytoalexins	bacterial or fungal pathogens
B-1,3-glucanase antisense	bacterial or fungal pathogens
receptor kinase	bacterial or fungal pathogens
Hypersensitive response eliciting polypeptide	bacterial or fungal pathogens
Systemic acquires resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Lytic protein	bacterial or fungal pathogens
Lysozym	bacterial or fungal pathogens eg clavibacter
Chitinases	bacterial or fungal pathogens
Barnase	bacterial or fungal pathogens
Glucanases	bacterial or fungal pathogens
double stranded ribonuclease	viruses as SCMV, SrMV
Coat proteins	viruses as SCMV, SrMV
17 kDa or 60 kDa protein	viruses as SCMV, SrMV
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses as SCMV, SrMV
Pseudobiquitin	viruses as SCMV, SrMV
Replicase	viruses as SCMV, SrMV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, Photorabidus and <i>Xenorhabdus</i> toxins	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
3-Hydroxysteroid oxidase	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
Peroxidase	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
Lectines	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
Protease Inhibitors eg. cystatin, patatin, CPTI, viginferin	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
ribosome inactivating protein	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
stilbene synthase	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
HMG-CoA reductase	lepidoptera, aphids, mites, nematodes, whitefly, beetles eg mexican rice borer
Cyst nematode hatching stimulus	cyst nematodes
Burnase	nematodes eg root knot nematodes and cyst nematodes
CBI	root knot nematodes
Antifeeding principles induced at a nematode feeding site	nematodes eg root knot nematodes, root cyst nematodes

TABLE A17

Crop Sunflower	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonyleureas, Imidazolinones, Triazolopyrimidines, Pyrimidylbenzoates, Phthalides
AcetylCoA Carboxylase (ACCase)	Aryloxyphenoxyalkancarboxylic acids, cyclohexanediolones

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TABLE A17-continued

Crop Sunflower	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
5 Hydroxyphenylpyruvate dioxygenase (HPPD)	Isoxazoles such as Isoxaflutol or Isoxaclorolol, Triones such as mesotrione or sulcotrione
10 Phosphinothricin acetyl transferase	Phosphinothricin
O-Methyl transferase	altered lignin levels
Glutamine synthetase	Glufosinate, Bialaphos
Adenylosuccinate Lyase (ADSL)	Inhibitors of IMP and AMP synthesis
15 Adenylosuccinate Synthase	Inhibitors of adenylosuccinate synthesis
Anthranilate Synthase	Inhibitors of tryptophan synthesis and catabolism
Nitrilase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
20 5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenopylate, oxadiazoles etc.
Protoporphyrinogen oxidase (PROTOX)	Xenobiotics and herbicides such as Sulfonyleureas
25 Cytochrome P450 eg. P450 SU1 or selection	bacterial or fungal pathogens
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial or fungal pathogens
Metallorhionein	bacterial or fungal pathogens
Ribonuclease	bacterial or fungal pathogens
30 Antifungal polypeptide AlyAFP	bacterial or fungal pathogens
oxalate oxidase	eg <i>sclerotinia</i>
glucose oxidase	bacterial or fungal pathogens
pyrrolitrin synthesis genes	bacterial or fungal pathogens
serine/threonine kinases	bacterial or fungal pathogens
35 Cecropin B	bacterial or fungal pathogens
Phenylalanine ammonia lyase (PAL)	bacterial or fungal pathogens
Cf genes eg. Cf9 Cf5 Cf4 Cf2	bacterial or fungal pathogens
Osmotin	bacterial or fungal pathogens
Alpha Hordothionin	bacterial or fungal pathogens
Systemin	bacterial or fungal pathogens
Polygalacturonase inhibitors	bacterial or fungal pathogens
Prf regulatory gene	bacterial or fungal pathogens
phytoalexins	bacterial or fungal pathogens
B-1,3-glucanase antisense	bacterial or fungal pathogens
receptor kinase	bacterial or fungal pathogens
45 Hypersensitive response eliciting polypeptide	bacterial or fungal pathogens
Systemic acquires resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Lytic protein	bacterial or fungal pathogens
Lysozym	bacterial or fungal pathogens
Chitinases	bacterial or fungal pathogens
50 Barnase	bacterial or fungal pathogens
Glucanases	bacterial or fungal pathogens
double stranded ribonuclease	viruses as CMV, TMV
Coat proteins	viruses as CMV, TMV
17 kDa or 60 kDa protein	viruses as CMV, TMV
Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses as CMV, TMV
Pseudobiquitin	viruses as CMV, TMV
Replicase	viruses as CMV, TMV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, Photorabidus and <i>Xenorhabdus</i> toxins	lepidoptera, aphids, mites, nematodes, whitefly, beetles
3-Hydroxysteroid oxidase	lepidoptera, aphids, mites, nematodes, whitefly, beetles
Peroxidase	lepidoptera, aphids, mites, nematodes, whitefly, beetles
Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids, mites, nematodes, whitefly, beetles
Lectines	lepidoptera, aphids, mites, nematodes, whitefly, beetles
65 Protease Inhibitors eg. cystatin,	lepidoptera, aphids, mites,

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TABLE A17-continued

Crop Sunflower	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
patatin, CPTI, virgiferin ribosome inactivating protein	nematodes, whitefly, beetles lepidoptera, aphids, mites, acnatodes, whitefly, beetles
stilbene synthase	lepidoptera, aphids, mites, nematodes, whitefly, beetles lepidoptera, aphids, mites, nematodes, whitefly, beetles
HMG-CoA reductase	cyst nematodes
Cyst nematode hatching stimulus	nematodes eg root knot nematodes and cyst nematodes
Barnase	root knot nematodes
CBI	nematodes eg root knot nematodes, root cyst nematodes
Antifeeding principles induced at a nematode feeding site	root cyst nematodes

TABLE A18

Crop Sugarbeet, Beet root	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
Acetolactate synthase (ALS)	Sulfonylureas, Imidazolinones, Triazolopyrimidines, Pyrimidylxybenzoates, Phthalides Aryloxyphenoxyalkane carboxylic acids, cyclohexanediones
AcetylCoA Carboxylase (ACCase)	Isoxazoles such as Isoxaflutol or Isoxaclortol, Trione such as mesotrione or sulcotrione
Hydroxyphenylpyruvate dioxygenase (HPPD)	Phosphinothricin
Phosphinothricin acetyl transferase	altered lignin levels
O-Methyl transferase	Glufosinate, Bialaphos
Glutamine synthetase	Inhibitors of IMP and AMP synthesis
Adenylosuccinate Lyase (ADSL)	Inhibitors of adenylosuccinate synthesis
Adenylosuccinate Synthase	Inhibitors of tryptophan synthesis and catabolism
Anthranilate Synthase	3,5-dihalo-4-hydroxy-benzonitriles such as Bromoxynil and Ioxynil
Nitrilase	Glyphosate or sulfosate
5-Enolpyruvyl-3-phosphoshikimate Synthase (EPSPS)	Glyphosate or sulfosate
Glyphosate oxidoreductase	Diphenylethers, cyclic imides, phenylpyrazoles, pyridin derivatives, phenoxypylate, oxadiazoles etc.
Protoporphyrinogen oxidase (PROTOX)	Xenobiotics and herbicides such as Sulfonylureas
Cytochrome P450 eg. P450 SU1 or selection	bacterial or fungal pathogens
Polyphenol oxidase or Polyphenol oxidase antisense	bacterial or fungal pathogens
Metallothionein	bacterial or fungal pathogens
Ribonuclease	bacterial or fungal pathogens
Antifungal polypeptide AlyAFP	bacterial or fungal pathogens
oxalate oxidase	eg <i>sclerotinia</i>
glucose oxidase	bacterial or fungal pathogens
pyrrolnitrin synthesis genes	bacterial or fungal pathogens
serine/threonine kinases	bacterial or fungal pathogens
Cecropin B	bacterial or fungal pathogens
Phenylalanine ammonia lyase (PAL)	bacterial or fungal pathogens
Cf genes eg. Cf 9 Cf5 Cf4 Cf2	bacterial or fungal pathogens
Osmotin	bacterial or fungal pathogens
Alpha Hordothionin	bacterial or fungal pathogens
Systemin	bacterial or fungal pathogens
Polygalacturonase inhibitors	bacterial or fungal pathogens
Prf regulatory gene	bacterial or fungal pathogens
phytoalexins	bacterial or fungal pathogens
B-1,3-glucanase antisense	bacterial or fungal pathogens

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TABLE A18-continued

Crop Sugarbeet, Beet root	
Effected target or expressed principle(s)	Crop phenotype/Tolerance to
AX + WIN proteins	bacterial or fungal pathogens like <i>Cercospora beticola</i>
receptor kinase	bacterial or fungal pathogens
10 Hypersensitive response eliciting polypeptide	bacterial or fungal pathogens
Systemic acquires resistance (SAR) genes	viral, bacterial, fungal, nematodal pathogens
Lytic protein	bacterial or fungal pathogens
Lysozym	bacterial or fungal pathogens
15 Chitinases	bacterial or fungal pathogens
Barnase	bacterial or fungal pathogens
Glucanases	viruses as BNYYV
double stranded ribonuclease	viruses as BNYYV
Coat proteins	viruses as BNYYV
17 kDa or 60 kDa protein	viruses as BNYYV
20 Nuclear inclusion proteins eg. a or b or Nucleoprotein	viruses as BNYYV
Pseudobiquitin	viruses as BNYYV
Replicase	viruses as BNYYV
<i>Bacillus thuringiensis</i> toxins, VIP 3, <i>Bacillus cereus</i> toxins, Photorabdis and <i>Xenorhabdus</i> toxins	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
25 3-Hydroxysteroid oxidase	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
Peroxidase	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
30 Aminopeptidase inhibitors eg. Leucine aminopeptidase inhibitor	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
Lectines	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
35 Protease Inhibitors eg. cystatin, patatin, CPTI, virgiferin	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
ribosome inactivating protein	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
40 stilbene synthase	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
HMG-CoA reductase	lepidoptera, aphids, mites, nematodes, whitefly, beetles, rootflies
Cyst nematode hatching stimulus	cyst nematodes
45 Barnase	nematodes eg root knot nematodes and cyst nematodes
Beet cyst nematode resistance locus	cyst nematodes
CBI	root knot nematodes
Antifeeding principles induced at a nematode feeding site	nematodes eg root knot nematodes, root cyst nematodes
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The abovementioned animal pests which can be controlled by the method according to the invention include, for example, insects, representatives of the order acarina and representatives of the class nematoda; especially from the order Lepidoptera *Acleris* spp., *Adoxophyes* spp., especially *Adoxophyes reticulana*; *Aegeria* spp., *Agrotis* spp., especially *Agrotis spinifera*; *Alabama argillaceae*, *Amlyois* spp., *Anticarsia gemmatilis*, *Archips* spp., *Argyrotaenia* spp., *Autographa* spp., *Busseola fusca*, *Cadra cautella*, *Carposina nipponensis*, *Chilo* spp., *Choristoneura* spp., *Clysia ambiguella*, *Cnaphalocrocis* spp., *Cnephasia* spp., *Cochylis* spp., *Coleophora* spp., *Crocidolomia binotalis*, *Cryptophlebia leucotreta*, *Cydia* spp., especially *Cydia pomonella*; *Diatraea* spp., *Diparopsis castanea*, *Earias* spp., *Ephesia* spp., especially *E. Khü-*

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niella; *Eucosma* spp., *Eupoecilia ambiguella*, *Euproctis* spp., *Euxoa* spp., *Grapholita* spp., *Hedya nubiferana*, *Heliothis* spp., especially *H. virescens* und *H. zea*; *Helicula undalis*, *Hyphantria cunea*, *Keiferia lycopersicella*, *Leucoptera scitella*, *Lithocollethis* spp., *Lobesia* spp., *Lymantria* spp., *Lyonetia* spp., *Malacosoma* spp., *Mamestra brassicae*, *Manduca sexta*, *Operophtera* spp., *Ostrinia nubilalis*, *Pammene* spp., *Pandemis* spp., *Panolis flammea*, *Pectinophora* spp., *Phthorimaea operculella*, *Pieris rapae*, *Pieris* spp., *Plutella xylostella*, *Prays* spp., *Scirpophaga* spp., *Sesamia* spp., *Sparganothis* spp., *Spodopteralittoralis*, *Synanthedon* spp., *Thaumetopoea* spp., *Tortrix* spp., *Trichoplusia ni* and *Yponomeuta* spp.; from the order Coleoptera, for example *Agriotes* spp., *Anthonomus* spp., *Atomaria linearis*, *Chaetocnema tibialis*, *Cosmopolites* spp., *Curculio* spp., *Dermestes* spp., *Diabrotica* spp., *Epilachna* spp., *Eremmus* spp., *Leptinotarsa decemlineata*, *Lissorhoptrus* spp., *Melolontha* spp., *Oryzaephilus* spp., *Otiorynchus* spp., *Phlyctinus* spp., *Popillia* spp., *Psylliodes* spp., *Rhizopertha* spp., *Scarabaeidae*, *Sitophilus* spp., *Sitotroga* spp., *Tenebrio* spp., *Tribolium* spp. and *Trogoderma* spp.;

from the order Orthoptera, for example *Blatta* spp., *Blattella* spp., *Grylotalpa* spp., *Leucophaea maderae*, *Locusta* spp., *Periplaneta* spp. and *Schistocerca* spp.;

from the order Isoptera, for example *Reticulitermes* spp.;

from the order Psocoptera, for example *Liposcelis* spp.;

from the order Anoplura, for example *Haematopinus* spp., *Linognathus* spp., *Pediculus* spp., *Pemphigus* spp. and *Phylloxera* spp.;

from the order Mallophaga, for example *Damalinea* spp. and *Trichodectes* spp.;

from the order Thysanoptera, for example *Frankliniella* spp., *Hercinothrips* spp., *Taeniothrips* spp., *Thrips palmi*, *Thrips tabaci* and *Scirtothrips aurantii*;

from the order Heteroptera, for example *Cimex* spp., *Distantiella theobroma*, *Dysdercus* spp., *Euchistus* spp., *Eurygaster* spp., *Leptocoris* spp., *Nezara* spp., *Piesma* spp., *Rhodnius* spp., *Sahlbergella singularis*, *Scotinophara* spp. and *Triatoma* spp.;

from the order Homoptera, for example *Aleurothrixus floccosus*, *Aleyrodes brassicae*, *Aonidiella aurantii*, *Aphididae*, *Aphis craccivora*, *A. fabae*, *A. gossypii*, *Aspidiotus* spp., *Bemisia tabaci*, *Ceroplaster* spp., *Chrysomphalus aonidum*, *Chrysomphalus dictyospermi*, *Coccus hesperidum*, *Empoasca* spp., *Eriosoma lanigerum*, *Erythroneura* spp., *Gascardia* spp., *Laodelphax* spp., *Lecanium corni*, *Lepidosaphes* spp., *Macrosiphus* spp., *Myzus* spp., especially *M. persicae*; *Nephotettix* spp., especially *N. cincticeps*; *Nilaparvata* spp., especially *N. lugens*; *Paratoria* spp., *Pemphigus* spp., *Planococcus* spp., *Pseudaulacaspis* spp., *Pseudococcus* spp., especially *P. fragilis*, *P. citriculus* and *P. comstocki*; *Psylla* spp., especially *P. pyri*; *Pulvinaria aethiopica*, *Quadraspidiotus* spp., *Rhopalosiphum* spp., *Saissetia* spp., *Scaphoideus* spp., *Schizaphis* spp., *Sitobion* spp., *Trialeurodes vaporariorum*, *Trioza erythrae* and *Unaspis citri*;

from the order Hymenoptera, for example *Acromyrmex*, *Atta* spp., *Cephus* spp., *Diprion* spp., *Diprionidae*, *Gilpinia polytoma*, *Hoplocampa* spp., *Lasius* spp., *Monomorium pharaonis*, *Neodiprion* spp., *Solenopsis* spp. and *Vespa* spp.;

from the order Diptera, for example *Aedes* spp., *Antherigona soccata*, *Bibio hortulanus*, *Calliphora erythrocephala*, *Ceratitis* spp., *Chrysomyia* spp., *Culex* spp., *Cuterebra* spp., *Dacus* spp., *Drosophila melanogaster*, *Fannia* spp., *Gastrophilus* spp., *Glossina* spp., *Hypoderma* spp., *Hyp-*

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pobosca spp., *Liriomyza* spp., *Lucilia* spp., *Melanagromyza* spp., *Musca* spp., *Oestrus* spp., *Orseolia* spp., *Oscinella frit*, *Pegomyia hyoscyami*, *Phorbia* spp., *Rhagoletis pomonella*, *Sciara* spp., *Stomoxys* spp., *Tabanus* spp., *Tannia* spp. and *Tipula* spp.;

from the order Siphonaptera, for example *Ceratophyllus* spp. and *Xenopsylla cheopis*;

from the order Thysanura, for example *Lepisma saccharina* and

from the order Acarina, for example *Acarus siro*, *Aceria sheldoni*; *Aculus* spp., especially *A. schlehtendali*; *Amblyomma* spp., *Argas* spp., *Boophilus* spp., *Brevipalpus* spp., especially *B. californicus* and *B. phoenicis*; *Bryobia praetiosa*, *Calipitimerus* spp., *Chorioptes* spp., *Dermanyssus gallinae*, *Eotetranychus* spp., especially *E. carpinii* and *E. orientalis*; *Eriophyes* spp., especially *E. vitis*; *Hyalomma* spp., *Ixodes* spp., *Olygonychus pratensis*, *Ornithodoros* spp., *Panonychus* spp., especially *P. ulmi* and *P. citri*; *Phyllocoptura* spp., especially *P. oleivora*; *Polyphagotarsonemus* spp., especially *P. latus*; *Psoroptes* spp., *Rhipicephalus* spp., *Rhizoglyphus* spp., *Sarcoptes* spp., *Tarsonemus* spp. and *Tetranychus* spp., in particular *T. urticae*, *T. cinnabarinus* and *T. Kanzawai*;

Representatives of the Class Nematoda;

(1) nematodes selected from the group consisting of root knot nematodes, cyst-forming nematodes, stem eelworms and foliar nematodes;

(2) nematodes selected from the group consisting of *Anguina* spp.; *Aphelenchoides* spp.; *Ditylenchus* spp.; *Globodera* spp., for example *Globodera rostochiensis*; *Heterodera* spp., for example *Heterodera avenae*, *Heterodera glycines*, *Heterodera schachtii* or *Heterodera trifolii*; *Longidorus* spp.; *Meloidogyne* spp., for example *Meloidogyne incognita* or *Meloidogyne javanica*; *Pratylenchus*, for example *Pratylenchus neglectans* or *Pratylenchus penetrans*; *Radopholus* spp., for example *Radopholus similis*; *Trichodorus* spp.; *Tylenchulus*, for example *Tylenchulus semipenetrans*; and *Xiphinema* spp.; or

(3) nematodes selected from the group consisting of *Heterodera* spp., for example *Heterodera glycines*; and *Meloidogyne* spp., for example *Meloidogyne incognita*.

The method according to the invention allows pests of the abovementioned type to be controlled, i.e. contained or destroyed, which occur, in particular, on transgenic plants, mainly useful plants and ornamentals in agriculture, in horticulture and in forests, or on parts, such as fruits, flowers, foliage, stalks, tubers or roots, of such plants, the protection against these pests in some cases even extending to plant parts which form at a later point in time.

The method according to the invention can be employed advantageously for controlling pests in rice, cereals such as maize or sorghum; in fruit, for example stone fruit, pome fruit and soft fruit such as apples, pears, plums, peaches, almonds, cherries or berries, for example strawberries, raspberries and blackberries; in legumes such as beans, lentils, peas or soya beans; in oil crops such as oilseed rape, mustard, poppies, olives, sunflowers, coconuts, castor-oil plants, cacao or peanuts; in the marrow family such as pumpkins, cucumbers or melons; in fibre plants such as cotton, flax, hemp or jute; in citrus fruit such as oranges, lemons, grapefruit or tangerines; in vegetables such as spinach, lettuce, asparagus, cabbage species, carrots, onions, tomatoes, potatoes, beet or *capsicum*; in the laurel family such as avocado, Cinnamonum or camphor; or in tobacco, nuts, colfoc, egg plants, sugar cane, tea, pepper, grapevines, hops, the banana family, latex plants or ornamentals, mainly

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in maize, rice, cereals, soya beans, tomatoes, cotton, potatoes, sugar beet, rice and mustard; in particular in cotton, rice, soya beans, potatoes and maize.

It has emerged that the method according to the invention is valuable preventatively and/or curatively in the field of pest control even at low use concentrations of the pesticidal composition and that a very favourable biocidal spectrum is achieved thereby. Combined with a favourable compatibility of the composition employed with warm-blooded species, fish and plants, the method according to the invention can be employed against all or individual developmental stages of normally-sensitive, but also of normally-resistant, animal pests such as insects and representatives of the order Acarina, depending on the species of the transgenic crop plant to be protected from attack by pests. The insecticidal and/or acaricidal effect of the method according to the invention may become apparent directly, i.e. in a destruction of the pests which occurs immediately or only after some time has elapsed, for example, during ecdysis, or indirectly, for example as a reduced oviposition and/or hatching rate, the good action corresponding to a destruction rate (mortality) of at least 40 to 50%.

Depending on the intended aims and the prevailing circumstances, the pesticides within the scope of invention, which are known per se, are emulsifiable concentrates, suspension concentrates, directly sprayable or dilutable solutions, spreadable pastes, dilute emulsions, wettable powders, soluble powders, dispersible powders, wettable powders, dusts, granules or encapsulations in polymeric substances which comprise a nitroimino- or nitroguanidino-compound.

The active ingredients are employed in these compositions together with at least one of the auxiliaries conventionally used in art of formulation, such as extenders, for example solvents or solid carriers, or such as surface-active compounds (surfactants).

Formulation auxiliaries which are used are, for example, solid carriers, solvents, stabilizers, "slow release" auxiliaries, colourants and, if appropriate, surface-active substances (surfactants). Suitable carriers and auxiliaries are all those substances which are conventionally used for crop protection products. Suitable auxiliaries such as solvents, solid carriers, surface-active compounds, non-ionic surfactants, cationic surfactants, anionic surfactants and other auxiliaries in the compositions employed according to the invention are, for example, those which have been described in EP-A-736 252.

These compositions for controlling pests can be formulated, for example, as wettable powders, dusts, granules, solutions, emulsifiable concentrates, emulsions, suspension concentrates or aerosols. For example, the compositions are of the type described in EP-A-736 252.

The action of the compositions within the scope of invention which comprise a nitroimino- or nitroguanidino-compound can be extended substantially and adapted to prevailing circumstances by adding other insecticidally, acaricidally and/or fungicidally active ingredients. Suitable examples of added active ingredients are representatives of the following classes of active ingredients: organophosphorous compounds, nitrophenols and derivatives, formamidines, ureas, carbamates, pyrethroids, chlorinated hydrocarbons; especially preferred components in mixtures are, for example, abamectin, emamectin, spinosad, pymetrozine, fenoxycarb, Ti-435, fipronil, pyriproxyfen, diazinon or diafenthiuron.

As a rule, the compositions within the scope of invention comprise 0.1 to 99%, in particular 0.1 to 95%, of a

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nitroimino- or nitroguanidino-compound and 1 to 99.9%, in particular 5 to 99.9%, of—at least—one solid or liquid auxiliary, it being possible, as a rule, for 0 to 25%, in particular 0.1 to 20%, of the compositions to be surfactants (% in each case meaning percent by weight). While concentrated compositions are more preferred as commercial products, the end user will, as a rule, use dilute compositions which have considerably lower concentrations of active ingredient.

The compositions according to the invention may also comprise other solid or liquid auxiliaries, such as stabilisers, for example epoxidized or unepoxidized vegetable oils (for example epoxidized coconut oil, rapeseed oil or soya bean oil), antifoams, for example silicone oil, preservatives, viscosity regulators, binders and/or tackifiers, and also fertilizers or other active ingredients for achieving specific effects, for example, bactericides, fungicides, nematocides, molluscicides or herbicides.

The compositions according to the invention are produced in a known manner, for example prior to mixing with the auxiliary/auxiliaries by grinding, screening and/or compressing the active ingredient, for example to give a particular particle size, and by intimately mixing and/or grinding the active ingredient with the auxiliary/auxiliaries.

The method according to the invention for controlling pests of the abovementioned type is carried out in a manner known per se to those skilled in the art, depending on the intended aims and prevailing circumstances, that is to say by spraying, wetting, atomizing, dusting, brushing on, seed dressing, scattering or pouring of the composition. Typical use concentrations are between 0.1 and 1000 ppm, preferably between 0.1 and 500 ppm of active ingredient. The application rate may vary within wide ranges and depends on the soil constitution, the type of application (foliar application; seed dressing; application in the seed furrow), the transgenic crop plant, the pest to be controlled, the climatic circumstances prevailing in each case, and other factors determined by the type of application, timing of application and target crop. The application rates per hectare are generally 1 to 2000 g of nitroimino- or nitroguanidino-compound per hectare, in particular 10 to 1000 g/ha, preferably 10 to 500 g/ha, especially preferably 10 to 200 g/ha.

A preferred type of application in the field of crop protection within the scope of invention is application to the foliage of the plants (foliar application), it being possible to adapt frequency and rate of application to the risk of infestation with the pest in question. However, the active ingredient may also enter into the plants via the root system (systemic action), by drenching the site of the plants with a liquid composition or by incorporating the active ingredient in solid form into the site of the plants, for example into the soil, for example in the form of granules (soil application). In the case of paddy rice crops, such granules may be metered into the flooded paddy field.

The compositions according to invention are also suitable for protecting propagation material of transgenic plants, for example seed, such as fruits, tubers or kernels, or plant cuttings, from animal pests, in particular insects and representatives of the order Acarina.

The propagation material can be treated with the composition prior to application, for example, seed being dressed prior to sowing. The active ingredient may also be applied to seed kernels (coating), either by soaking the kernels in a liquid composition or by coating them with a solid composition. The composition may also be applied to the site of application when applying the propagation material, for example into the seed furrow during sowing. These treat-

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ment methods for plant propagation material and the plant propagation material treated thus are a further subject of the invention.

Examples of formulations of nitroimino- or nitroguani-
dino-compounds which can be used in the method according
to the invention, for instance solutions, granules, dusts,
sprayable powders, emulsion concentrates, coated granules
and suspension concentrates, are of the type as has been
described in, for example, EP-A-580 553, Examples F1 to
F10.

BIOLOGICAL EXAMPLES

TABLE B

	AP	Control of
B.1	CryIA(a)	<i>Adoxophyes</i> spp.
B.2	CryIA(a)	<i>Agrotis</i> spp.
B.3	CryIA(a)	<i>Alabama argillaceae</i>
B.4	CryIA(a)	<i>Anticarsia gemmatilis</i>
B.5	CryIA(a)	<i>Chilo</i> spp.
B.6	CryIA(a)	<i>Clysia ambiguella</i>
B.7	CryIA(a)	<i>Crocidolomia binotalis</i>
B.8	CryIA(a)	<i>Cydia</i> spp.
B.9	CryIA(a)	<i>Diparopsis castanea</i>
B.10	CryIA(a)	<i>Earias</i> spp.
B.11	CryIA(a)	<i>Ephestia</i> spp.
B.12	CryIA(a)	<i>Heliothis</i> spp.
B.13	CryIA(a)	<i>Heliothis undalis</i>
B.14	CryIA(a)	<i>Keiferia lycopersicella</i>
B.15	CryIA(a)	<i>Leucophaea scitella</i>
B.16	CryIA(a)	<i>Lithocolletis</i> spp.
B.17	CryIA(a)	<i>Lobesia botrana</i>
B.18	CryIA(a)	<i>Ostrinia nubilalis</i>
B.19	CryIA(a)	<i>Pandemis</i> spp.
B.20	CryIA(a)	<i>Pectinophora gossypi</i>
B.21	CryIA(a)	<i>Phyllocnistis citrella</i>
B.22	CryIA(a)	<i>Pieris</i> spp.
B.23	CryIA(a)	<i>Plutella xylostella</i>
B.24	CryIA(a)	<i>Scirpophaga</i> spp.
B.25	CryIA(a)	<i>Sesamia</i> spp.
B.26	CryIA(a)	<i>Sparganothis</i> spp.
B.27	CryIA(a)	<i>Spodoptera</i> spp.
B.28	CryIA(a)	<i>Tortrix</i> spp.
B.29	CryIA(a)	<i>Trichoplusia ni</i>
B.30	CryIA(a)	<i>Agrotis</i> spp.
B.31	CryIA(a)	<i>Anthonomus grandis</i>
B.32	CryIA(a)	<i>Curculio</i> spp.
B.33	CryIA(a)	<i>Diabrotica balteata</i>
B.34	CryIA(a)	<i>Leptinotarsa</i> spp.
B.35	CryIA(a)	<i>Lissorhoptrus</i> spp.
B.36	CryIA(a)	<i>Otiorthynchus</i> spp.
B.37	CryIA(a)	<i>Aleurothrixus</i> spp.
B.38	CryIA(a)	<i>Aleyrodes</i> spp.
B.39	CryIA(a)	<i>Aonidiella</i> spp.
B.40	CryIA(a)	<i>Aphididae</i> spp.
B.41	CryIA(a)	<i>Aphis</i> spp.
B.42	CryIA(a)	<i>Bemisia tabaci</i>
B.43	CryIA(a)	<i>Empoasca</i> spp.
B.44	CryIA(a)	<i>Mycus</i> spp.
B.45	CryIA(a)	<i>Nephotettix</i> spp.
B.46	CryIA(a)	<i>Nilaparvata</i> spp.
B.47	CryIA(a)	<i>Pseudococcus</i> spp.
B.48	CryIA(a)	<i>Psylla</i> spp.
B.49	CryIA(a)	<i>Quadrastipidius</i> spp.
B.50	CryIA(a)	<i>Schizaphis</i> spp.
B.51	CryIA(a)	<i>Trialeurodes</i> spp.
B.52	CryIA(a)	<i>Lyriomyza</i> spp.
B.53	CryIA(a)	<i>Oscinella</i> spp.
B.54	CryIA(a)	<i>Phorbia</i> spp.
B.55	CryIA(a)	<i>Frankliniella</i> spp.
B.56	CryIA(a)	<i>Thrips</i> spp.
B.57	CryIA(a)	<i>Scirtothrips aurantii</i>
B.58	CryIA(a)	<i>Aceria</i> spp.
B.59	CryIA(a)	<i>Aculus</i> spp.
B.60	CryIA(a)	<i>Brevipalpus</i> spp.

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TABLE B-continued

	AP	Control of
5	B.61	CryIA(a) <i>Panonychus</i> spp.
	B.62	CryIA(a) <i>Phyllocoptruta</i> spp.
	B.63	CryIA(a) <i>Tetranychus</i> spp.
	B.64	CryIA(a) <i>Heterodera</i> spp.
	B.65	CryIA(a) <i>Meloidogyne</i> spp.
	B.66	CryIA(b) <i>Adoxophyes</i> spp.
10	B.67	CryIA(b) <i>Agrotis</i> spp.
	B.68	CryIA(b) <i>Alabama argillaceae</i>
	B.69	CryIA(b) <i>Anticarsia gemmatilis</i>
	B.70	CryIA(b) <i>Chilo</i> spp.
	B.71	CryIA(b) <i>Clysia ambiguella</i>
	B.72	CryIA(b) <i>Crocidolomia binotalis</i>
15	B.73	CryIA(b) <i>Cydia</i> spp.
	B.74	CryIA(b) <i>Diparopsis castanea</i>
	B.75	CryIA(b) <i>Earias</i> spp.
	B.76	CryIA(b) <i>Ephestia</i> spp.
	B.77	CryIA(b) <i>Heliothis</i> spp.
	B.78	CryIA(b) <i>Heliothis virescens</i>
	B.79	CryIA(b) <i>Keiferia lycopersicella</i>
20	B.80	CryIA(b) <i>Leucophaea scitella</i>
	B.81	CryIA(b) <i>Lithocolletis</i> spp.
	B.82	CryIA(b) <i>Lobesia botrana</i>
	B.83	CryIA(b) <i>Ostrinia nubilalis</i>
	B.84	CryIA(b) <i>Pandemis</i> spp.
	B.85	CryIA(b) <i>Pectinophora gossypiella</i>
25	B.86	CryIA(b) <i>Phyllocnistis citrella</i>
	B.87	CryIA(b) <i>Pieris</i> spp.
	B.88	CryIA(b) <i>Plutella maculipennis</i>
	B.89	CryIA(b) <i>Scirpophaga</i> spp.
	B.90	CryIA(b) <i>Sesamia</i> spp.
	B.91	CryIA(b) <i>Sparganothis</i> spp.
30	B.92	CryIA(b) <i>Spodoptera</i> spp.
	B.93	CryIA(b) <i>Tortrix</i> spp.
	B.94	CryIA(b) <i>Trichoplusia ni</i>
	B.95	CryIA(b) <i>Agrotis</i> spp.
	B.96	CryIA(b) <i>Anthonomus grandis</i>
	B.97	CryIA(b) <i>Curculio</i> spp.
35	B.98	CryIA(b) <i>Diabrotica balteata</i>
	B.99	CryIA(b) <i>Leptinotarsa</i> spp.
	B.100	CryIA(b) <i>Lissorhoptrus</i> spp.
	B.101	CryIA(b) <i>Otiorthynchus</i> spp.
	B.102	CryIA(b) <i>Aleurothrixus</i> spp.
	B.103	CryIA(b) <i>Aleyrodes</i> spp.
40	B.104	CryIA(b) <i>Aonidiella</i> spp.
	B.105	CryIA(b) <i>Aphididae</i> spp.
	B.106	CryIA(b) <i>Aphis</i> spp.
	B.107	CryIA(b) <i>Bemisia tabaci</i>
	B.108	CryIA(b) <i>Empoasca</i> spp.
	B.109	CryIA(b) <i>Myzus</i> spp.
	B.110	CryIA(b) <i>Nephotettix</i> spp.
45	B.111	CryIA(b) <i>Nilaparvata</i> spp.
	B.112	CryIA(b) <i>Pseudococcus</i> spp.
	B.113	CryIA(b) <i>Psylla</i> spp.
	B.114	CryIA(b) <i>Quadrastipidius</i> spp.
	B.115	CryIA(b) <i>Schizaphis</i> spp.
	B.116	CryIA(b) <i>Trialeurodes</i> spp.
50	B.117	CryIA(b) <i>Lyriomyza</i> spp.
	B.118	CryIA(b) <i>Oscinella</i> spp.
	B.119	CryIA(b) <i>Phorbia</i> spp.
	B.120	CryIA(b) <i>Frankliniella</i> spp.
	B.121	CryIA(b) <i>Thrips</i> spp.
	B.122	CryIA(b) <i>Scirtothrips aurantii</i>
55	B.123	CryIA(b) <i>Aceria</i> spp.
	B.124	CryIA(b) <i>Aculus</i> spp.
	B.125	CryIA(b) <i>Brevipalpus</i> spp.
	B.126	CryIA(b) <i>Panonychus</i> spp.
	B.127	CryIA(b) <i>Phyllocoptruta</i> spp.
	B.128	CryIA(b) <i>Tetranychus</i> spp.
	B.129	CryIA(b) <i>Heterodera</i> spp.
60	B.130	CryIA(b) <i>Meloidogyne</i> spp.
	B.131	CryIA(c) <i>Adoxophyes</i> spp.
	B.132	CryIA(c) <i>Agrotis</i> spp.
	B.133	CryIA(c) <i>Alabama argillaceae</i>
	B.134	CryIA(c) <i>Anticarsia gemmatilis</i>
	B.135	CryIA(c) <i>Chilo</i> spp.
65	B.136	CryIA(c) <i>Clysia ambiguella</i>
	B.137	CryIA(c) <i>Crocidolomia binotalis</i>

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TABLE B-continued

AP	Control of
B.138	CryIA(c) <i>Cydia</i> spp.
B.139	CryIA(c) <i>Diparopsis castanea</i>
B.140	CryIA(c) <i>Earias</i> spp.
B.141	CryIA(c) <i>Ephestia</i> spp.
B.142	CryIA(c) <i>Heliothis</i> spp.
B.143	CryIA(c) <i>Heliothis undalis</i>
B.144	CryIA(c) <i>Keiferia lycopersicella</i>
B.145	CryIA(c) <i>Leucophaea scitella</i>
B.146	CryIA(c) <i>Lithocolletis</i> spp.
B.147	CryIA(c) <i>Lobesia botrana</i>
B.148	CryIA(c) <i>Ostrinia nubilalis</i>
B.149	CryIA(c) <i>Pandemis</i> spp.
B.150	CryIA(c) <i>Pectinophora gossypiella</i>
B.151	CryIA(c) <i>Phyllocnistis citrella</i>
B.152	CryIA(c) <i>Pieris</i> spp.
B.153	CryIA(c) <i>Plutella xylostella</i>
B.154	CryIA(c) <i>Scirpophaga</i> spp.
B.155	CryIA(c) <i>Sesamia</i> spp.
B.156	CryIA(c) <i>Sparganothis</i> spp.
B.157	CryIA(c) <i>Spodoptera</i> spp.
B.158	CryIA(c) <i>Tortrix</i> spp.
B.159	CryIA(c) <i>Trichoplusia ni</i>
B.160	CryIA(c) <i>Agrotis</i> spp.
B.161	CryIA(c) <i>Anthonomus grandis</i>
B.162	CryIA(c) <i>Curculio</i> spp.
B.163	CryIA(c) <i>Diabrotica balteata</i>
B.164	CryIA(c) <i>Leptinotarsa</i> spp.
B.165	CryIA(c) <i>Lissorhoptrus</i> spp.
B.166	CryIA(c) <i>Otiorynchus</i> spp.
B.167	CryIA(c) <i>Aleurothrips</i> spp.
B.168	CryIA(c) <i>Aleyrodes</i> spp.
B.169	CryIA(c) <i>Aonidiella</i> spp.
B.170	CryIA(c) <i>Aphididae</i> spp.
B.171	CryIA(c) <i>Aphis</i> spp.
B.172	CryIA(c) <i>Bemisia tabaci</i>
B.173	CryIA(c) <i>Empoasca</i> spp.
B.174	CryIA(c) <i>Myzus</i> spp.
B.175	CryIA(c) <i>Nephotettix</i> spp.
B.176	CryIA(c) <i>Nilaparvata</i> spp.
B.177	CryIA(c) <i>Pseudococcus</i> spp.
B.178	CryIA(c) <i>Psylla</i> spp.
B.179	CryIA(c) <i>Quadrastipitatus</i> spp.
B.180	CryIA(c) <i>Schizaphis</i> spp.
B.181	CryIA(c) <i>Trialeurodes</i> spp.
B.182	CryIA(c) <i>Lyrionyma</i> spp.
B.183	CryIA(c) <i>Oscinella</i> spp.
B.184	CryIA(c) <i>Phorbia</i> spp.
B.185	CryIA(c) <i>Frankliniella</i> spp.
B.186	CryIA(c) <i>Thrips</i> spp.
B.187	CryIA(c) <i>Scirtothrips aurantii</i>
B.188	CryIA(c) <i>Aceria</i> spp.
B.189	CryIA(c) <i>Aculus</i> spp.
B.190	CryIA(c) <i>Brevipalpus</i> spp.
B.191	CryIA(c) <i>Panonychus</i> spp.
B.192	CryIA(c) <i>Phyllocoptruta</i> spp.
B.193	CryIA(c) <i>Tetranychus</i> spp.
B.194	CryIA(c) <i>Heterodera</i> spp.
B.195	CryIA(c) <i>Meloidogyne</i> spp.
B.196	CryIIA <i>Adoxophyes</i> spp.
B.197	CryIIA <i>Agrotis</i> spp.
B.198	CryIIA <i>Alabama argillaceae</i>
B.199	CryIIA <i>Anticarsia gemmatilis</i>
B.200	CryIIA <i>Chilo</i> spp.
B.201	CryIIA <i>Clysia ambigua</i>
B.202	CryIIA <i>Crocidolomia binotalis</i>
B.203	CryIIA <i>Cydia</i> spp.
B.204	CryIIA <i>Diparopsis castanea</i>
B.205	CryIIA <i>Earias</i> spp.
B.206	CryIIA <i>Ephestia</i> spp.
B.207	CryIIA <i>Heliothis</i> spp.
B.208	CryIIA <i>Heliothis undalis</i>
B.209	CryIIA <i>Keiferia lycopersicella</i>
B.210	CryIIA <i>Leucophaea scitella</i>
B.211	CryIIA <i>Lithocolletis</i> spp.
B.212	CryIIA <i>Lobesia botrana</i>
B.213	CryIIA <i>Ostrinia nubilalis</i>
B.214	CryIIA <i>Pandemis</i> spp.

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TABLE B-continued

AP	Control of
B.215	CryIIA <i>Pectinophora gossypiella</i>
B.216	CryIIA <i>Phyllocnistis citrella</i>
B.217	CryIIA <i>Pieris</i> spp.
B.218	CryIIA <i>Plutella xylostella</i>
B.219	CryIIA <i>Scirpophaga</i> spp.
B.220	CryIIA <i>Sesamia</i> spp.
B.221	CryIIA <i>Sparganothis</i> spp.
B.222	CryIIA <i>Spodoptera</i> spp.
B.223	CryIIA <i>Tortrix</i> spp.
B.224	CryIIA <i>Trichoplusia ni</i>
B.225	CryIIA <i>Agrotis</i> spp.
B.226	CryIIA <i>Anthonomus grandis</i>
B.227	CryIIA <i>Curculio</i> spp.
B.228	CryIIA <i>Diabrotica balteata</i>
B.229	CryIIA <i>Leptinotarsa</i> spp.
B.230	CryIIA <i>Lissorhoptrus</i> spp.
B.231	CryIIA <i>Otiorynchus</i> spp.
B.232	CryIIA <i>Aleurothrips</i> spp.
B.233	CryIIA <i>Aleyrodes</i> spp.
B.234	CryIIA <i>Aonidiella</i> spp.
B.235	CryIIA <i>Aphididae</i> spp.
B.236	CryIIA <i>Aphis</i> spp.
B.237	CryIIA <i>Bemisia tabaci</i>
B.238	CryIIA <i>Empoasca</i> spp.
B.239	CryIIA <i>Myzus</i> spp.
B.240	CryIIA <i>Nephotettix</i> spp.
B.241	CryIIA <i>Nilaparvata</i> spp.
B.242	CryIIA <i>Pseudococcus</i> spp.
B.243	CryIIA <i>Psylla</i> spp.
B.244	CryIIA <i>Quadrastipitatus</i> spp.
B.245	CryIIA <i>Schizaphis</i> spp.
B.246	CryIIA <i>Trialeurodes</i> spp.
B.247	CryIIA <i>Lyrionyma</i> spp.
B.248	CryIIA <i>Oscinella</i> spp.
B.249	CryIIA <i>Phorbia</i> spp.
B.250	CryIIA <i>Frankliniella</i> spp.
B.251	CryIIA <i>Thrips</i> spp.
B.252	CryIIA <i>Scirtothrips aurantii</i>
B.253	CryIIA <i>Aceria</i> spp.
B.254	CryIIA <i>Aculus</i> spp.
B.255	CryIIA <i>Brevipalpus</i> spp.
B.256	CryIIA <i>Panonychus</i> spp.
B.257	CryIIA <i>Phyllocoptruta</i> spp.
B.258	CryIIA <i>Tetranychus</i> spp.
B.259	CryIIA <i>Heterodera</i> spp.
B.260	CryIIA <i>Meloidogyne</i> spp.
B.261	CryIIIA <i>Adoxophyes</i> spp.
B.262	CryIIIA <i>Agrotis</i> spp.
B.263	CryIIIA <i>Alabama argillaceae</i>
B.264	CryIIIA <i>Anticarsia gemmatilis</i>
B.265	CryIIIA <i>Chilo</i> spp.
B.266	CryIIIA <i>Clysia ambigua</i>
B.267	CryIIIA <i>Crocidolomia binotalis</i>
B.268	CryIIIA <i>Cydia</i> spp.
B.269	CryIIIA <i>Diparopsis castanea</i>
B.270	CryIIIA <i>Earias</i> spp.
B.271	CryIIIA <i>Ephestia</i> spp.
B.272	CryIIIA <i>Heliothis</i> spp.
B.273	CryIIIA <i>Heliothis undalis</i>
B.274	CryIIIA <i>Keiferia lycopersicella</i>
B.275	CryIIIA <i>Leucophaea scitella</i>
B.276	CryIIIA <i>Lithocolletis</i> spp.
B.277	CryIIIA <i>Lobesia botrana</i>
B.278	CryIIIA <i>Ostrinia nubilalis</i>
B.279	CryIIIA <i>Pandemis</i> spp.
B.280	CryIIIA <i>Pectinophora gossypiella</i>
B.281	CryIIIA <i>Phyllocnistis citrella</i>
B.282	CryIIIA <i>Pieris</i> spp.
B.283	CryIIIA <i>Plutella xylostella</i>
B.284	CryIIIA <i>Scirpophaga</i> spp.
B.285	CryIIIA <i>Sesamia</i> spp.
B.286	CryIIIA <i>Sparganothis</i> spp.
B.287	CryIIIA <i>Spodoptera</i> spp.
B.288	CryIIIA <i>Tortrix</i> spp.
B.289	CryIIIA <i>Trichoplusia ni</i>
B.290	CryIIIA <i>Agrotis</i> spp.
B.291	CryIIIA <i>Anthonomus grandis</i>

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TABLE B-continued

AP	Control of
B.292	CryIIIA <i>Curculio</i> spp.
B.293	CryIIIA <i>Diabrotica balteata</i>
B.294	CryIIIA <i>Leptinotarsa</i> spp.
B.295	CryIIIA <i>Lissorhynchus</i> spp.
B.296	CryIIIA <i>Otiorthynchus</i> spp.
B.297	CryIIIA <i>Aleurothrixus</i> spp.
B.298	CryIIIA <i>Aleyrodes</i> spp.
B.299	CryIIIA <i>Aonidiella</i> spp.
B.300	CryIIIA <i>Aphididae</i> spp.
B.301	CryIIIA <i>Aphis</i> spp.
B.302	CryIIIA <i>Bemisia tabaci</i>
B.303	CryIIIA <i>Empoasca</i> spp.
B.304	CryIIIA <i>Mycus</i> spp.
B.305	CryIIIA <i>Nephotettix</i> spp.
B.306	CryIIIA <i>Nilaparvata</i> spp.
B.307	CryIIIA <i>Pseudococcus</i> spp.
B.308	CryIIIA <i>Psylla</i> spp.
B.309	CryIIIA <i>Quadrastipidiatus</i> spp.
B.310	CryIIIA <i>Schizaphis</i> spp.
B.311	CryIIIA <i>Trialeurodes</i> spp.
B.312	CryIIIA <i>Lyriomyza</i> spp.
B.313	CryIIIA <i>Oscinella</i> spp.
B.314	CryIIIA <i>Phorbia</i> spp.
B.315	CryIIIA <i>Frankliniella</i> spp.
B.316	CryIIIA <i>Thrips</i> spp.
B.317	CryIIIA <i>Scirtothrips aurantii</i>
B.318	CryIIIA <i>Aceria</i> spp.
B.319	CryIIIA <i>Aculus</i> spp.
B.320	CryIIIA <i>Brevipalpus</i> spp.
B.321	CryIIIA <i>Panonychus</i> spp.
B.322	CryIIIA <i>Phyllocoptruta</i> spp.
B.323	CryIIIA <i>Tetranychus</i> spp.
B.324	CryIIIA <i>Heterodera</i> spp.
B.325	CryIIIA <i>Meloidogyne</i> spp.
B.326	CryIIIB2 <i>Adoxophyes</i> spp.
B.327	CryIIIB2 <i>Agrotis</i> spp.
B.328	CryIIIB2 <i>Alabama argillaceae</i>
B.329	CryIIIB2 <i>Anticarsia gemmatilis</i>
B.330	CryIIIB2 <i>Chilo</i> spp.
B.331	CryIIIB2 <i>Clysia ambiguella</i>
B.332	CryIIIB2 <i>Crocidolomia binotalis</i>
B.333	CryIIIB2 <i>Cydia</i> spp.
B.334	CryIIIB2 <i>Diparopsis castanea</i>
B.335	CryIIIB2 <i>Earias</i> spp.
B.336	CryIIIB2 <i>Ephestia</i> spp.
B.337	CryIIIB2 <i>Heliothis</i> spp.
B.338	CryIIIB2 <i>Heltila undalis</i>
B.339	CryIIIB2 <i>Keiferia lycopersicella</i>
B.340	CryIIIB2 <i>Leucophaea scitella</i>
B.341	CryIIIB2 <i>Lithocolletis</i> spp.
B.342	CryIIIB2 <i>Lobesia botrana</i>
B.343	CryIIIB2 <i>Ostrinia nubilalis</i>
B.344	CryIIIB2 <i>Pandemis</i> spp.
B.345	CryIIIB2 <i>Pectinophora gossypi</i>
B.346	CryIIIB2 <i>Phyllocnistis citrella</i>
B.347	CryIIIB2 <i>Pieris</i> spp.
B.348	CryIIIB2 <i>Plutella xylostella</i>
B.349	CryIIIB2 <i>Scirpophaga</i> spp.
B.350	CryIIIB2 <i>Sesamia</i> spp.
B.351	CryIIIB2 <i>Sparganothis</i> spp.
B.352	CryIIIB2 <i>Spodoptera</i> spp.
B.353	CryIIIB2 <i>Tortrix</i> spp.
B.354	CryIIIB2 <i>Trichoplusia ni</i>
B.355	CryIIIB2 <i>Agrotis</i> spp.
B.356	CryIIIB2 <i>Anthonomus grandis</i>
B.357	CryIIIB2 <i>Curculio</i> spp.
B.358	CryIIIB2 <i>Diabrotica balteata</i>
B.359	CryIIIB2 <i>Leptinotarsa</i> spp.
B.360	CryIIIB2 <i>Lissorhynchus</i> spp.
B.361	CryIIIB2 <i>Otiorthynchus</i> spp.
B.362	CryIIIB2 <i>Aleurothrixus</i> spp.
B.363	CryIIIB2 <i>Aleyrodes</i> spp.
B.364	CryIIIB2 <i>Aonidiella</i> spp.
B.365	CryIIIB2 <i>Aphididae</i> spp.
B.366	CryIIIB2 <i>Aphis</i> spp.
B.367	CryIIIB2 <i>Bemisia tabaci</i>
B.368	CryIIIB2 <i>Empoasca</i> spp.

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TABLE B-continued

AP	Control of
5 B.369	CryIIIB2 <i>Mycus</i> spp.
B.370	CryIIIB2 <i>Nephotettix</i> spp.
B.371	CryIIIB2 <i>Nilaparvata</i> spp.
B.372	CryIIIB2 <i>Pseudococcus</i> spp.
B.373	CryIIIB2 <i>Psylla</i> spp.
B.374	CryIIIB2 <i>Quadrastipidiatus</i> spp.
10 B.375	CryIIIB2 <i>Schizaphis</i> spp.
B.376	CryIIIB2 <i>Trialeurodes</i> spp.
B.377	CryIIIB2 <i>Lyriomyza</i> spp.
B.378	CryIIIB2 <i>Oscinella</i> spp.
B.379	CryIIIB2 <i>Phorbia</i> spp.
B.380	CryIIIB2 <i>Frankliniella</i> spp.
15 B.381	CryIIIB2 <i>Thrips</i> spp.
B.382	CryIIIB2 <i>Scirtothrips aurantii</i>
B.383	CryIIIB2 <i>Aceria</i> spp.
B.384	CryIIIB2 <i>Aculus</i> spp.
B.385	CryIIIB2 <i>Brevipalpus</i> spp.
B.386	CryIIIB2 <i>Panonychus</i> spp.
B.387	CryIIIB2 <i>Phyllocoptruta</i> spp.
20 B.388	CryIIIB2 <i>Tetranychus</i> spp.
B.389	CryIIIB2 <i>Heterodera</i> spp.
B.390	CryIIIB2 <i>Meloidogyne</i> spp.
B.391	CyIA <i>Adoxophyes</i> spp.
B.392	CyIA <i>Agrotis</i> spp.
B.393	CyIA <i>Alabama argillaceae</i>
B.394	CyIA <i>Anticarsia gemmatilis</i>
B.395	CyIA <i>Chilo</i> spp.
B.396	CyIA <i>Clysia ambiguella</i>
B.397	CyIA <i>Crocidolomia binotalis</i>
B.398	CyIA <i>Cydia</i> spp.
B.399	CyIA <i>Diparopsis castanea</i>
30 B.400	CyIA <i>Earias</i> spp.
B.401	CyIA <i>Ephestia</i> spp.
B.402	CyIA <i>Heliothis</i> spp.
B.403	CyIA <i>Heltila undalis</i>
B.404	CyIA <i>Keiferia lycopersicella</i>
B.405	CyIA <i>Leucophaea scitella</i>
B.406	CyIA <i>Lithocolletis</i> spp.
B.407	CyIA <i>Lobesia botrana</i>
B.408	CyIA <i>Ostrinia nubilalis</i>
B.409	CyIA <i>Pandemis</i> spp.
B.410	CyIA <i>Pectinophora gossypi</i>
B.411	CyIA <i>Phyllocnistis citrella</i>
40 B.412	CyIA <i>Pieris</i> spp.
B.413	CyIA <i>Plutella xylostella</i>
B.414	CyIA <i>Scirpophaga</i> spp.
B.415	CyIA <i>Sesamia</i> spp.
B.416	CyIA <i>Sparganothis</i> spp.
B.417	CyIA <i>Spodoptera</i> spp.
B.418	CyIA <i>Tortrix</i> spp.
B.419	CyIA <i>Trichoplusia ni</i>
B.420	CyIA <i>Agrotis</i> spp.
B.421	CyIA <i>Anthonomus grandis</i>
B.422	CyIA <i>Curculio</i> spp.
B.423	CyIA <i>Diabrotica balteata</i>
B.424	CyIA <i>Leptinotarsa</i> spp.
50 B.425	CyIA <i>Lissorhynchus</i> spp.
B.426	CyIA <i>Otiorthynchus</i> spp.
B.427	CyIA <i>Aleurothrixus</i> spp.
B.428	CyIA <i>Aleyrodes</i> spp.
B.429	CyIA <i>Aonidiella</i> spp.
B.430	CyIA <i>Aphididae</i> spp.
B.431	CyIA <i>Aphis</i> spp.
B.432	CyIA <i>Bemisia tabaci</i>
B.433	CyIA <i>Empoasca</i> spp.
B.434	CyIA <i>Mycus</i> spp.
B.435	CyIA <i>Nephotettix</i> spp.
B.436	CyIA <i>Nilaparvata</i> spp.
B.437	CyIA <i>Pseudococcus</i> spp.
60 B.438	CyIA <i>Psylla</i> spp.
B.439	CyIA <i>Quadrastipidiatus</i> spp.
B.440	CyIA <i>Schizaphis</i> spp.
B.441	CyIA <i>Trialeurodes</i> spp.
B.442	CyIA <i>Lyriomyza</i> spp.
B.443	CyIA <i>Oscinella</i> spp.
B.444	CyIA <i>Phorbia</i> spp.
B.445	CyIA <i>Frankliniella</i> spp.

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TABLE B-continued

AP	Control of
B.446	CytA <i>Thrips</i> spp.
B.447	CytA <i>Scirtothrips aurantii</i>
B.448	CytA <i>Aceria</i> spp.
B.449	CytA <i>Acidus</i> spp.
B.450	CytA <i>Brevipalpus</i> spp.
B.451	CytA <i>Panonychus</i> spp.
B.452	CytA <i>Phyllocoptruta</i> spp.
B.453	CytA <i>Tetranychus</i> spp.
B.454	CytA <i>Heterodera</i> spp.
B.455	CytA <i>Meloidogyne</i> spp.
B.456	VTP3 <i>Adoxophyes</i> spp.
B.457	VTP3 <i>Agrotis</i> spp.
B.458	VIP3 <i>Alabama argillaceae</i>
B.459	VIP3 <i>Anticarsia gemmatilis</i>
B.460	VIP3 <i>Chilo</i> spp.
B.461	VIP3 <i>Clysia ambiguella</i>
B.462	VIP3 <i>Crocidolomia binotalis</i>
B.463	VIP3 <i>Cydia</i> spp.
B.464	VIP3 <i>Diparopsis castanea</i>
B.465	VIP3 <i>Earias</i> spp.
B.466	VTP3 <i>Ephestia</i> spp.
B.467	VIP3 <i>Heliothis</i> spp.
B.468	VIP3 <i>Heliothis undalis</i>
B.469	VIP3 <i>Keiferia lycopersicella</i>
B.470	VIP3 <i>Leucophaea scitella</i>
B.471	VIP3 <i>Lithocolletis</i> spp.
B.472	VIP3 <i>Lobesia botrana</i>
B.473	VIP3 <i>Ostrinia nubilalis</i>
B.474	VIP3 <i>Pandemis</i> spp.
B.475	VIP3 <i>Pectinophora gossypi</i>
B.476	VIP3 <i>Phyllocnistis citrella</i>
B.477	VIP3 <i>Pieris</i> spp.
B.478	VIP3 <i>Plutella xylostella</i>
B.479	VIP3 <i>Scirpophaga</i> spp.
B.480	VIP3 <i>Sesamia</i> spp.
B.481	VIP3 <i>Sparganothis</i> spp.
B.482	VIP3 <i>Spodoptera</i> spp.
B.483	VIP3 <i>Tortrix</i> spp.
B.484	VIP3 <i>Trichoplusia ni</i>
B.485	VIP3 <i>Agrotis</i> spp.
B.486	VIP3 <i>Anthonomus grandis</i>
B.487	VIP3 <i>Curculio</i> spp.
B.488	VIP3 <i>Diabrotica balteata</i>
B.489	VIP3 <i>Lepidoptera</i> spp.
B.490	VIP3 <i>Lissorhoptrus</i> spp.
B.491	VIP3 <i>Otiorynchus</i> spp.
B.492	VIP3 <i>Aleurothrixus</i> spp.
B.493	VIP3 <i>Aleyrodes</i> spp.
B.494	VIP3 <i>Aonidiella</i> spp.
B.495	VIP3 <i>Aphididae</i> spp.
B.496	VIP3 <i>Aphis</i> spp.
B.497	VIP3 <i>Bemisia tabaci</i>
B.498	VIP3 <i>Empoasca</i> spp.
B.499	VIP3 <i>Myzus</i> spp.
B.500	VIP3 <i>Nephotettix</i> spp.
B.501	VIP3 <i>Nilaparvata</i> spp.
B.502	VIP3 <i>Pseudococcus</i> spp.
B.503	VIP3 <i>Psylla</i> spp.
B.504	VIP3 <i>Quadrastipitatus</i> spp.
B.505	VIP3 <i>Schizaphis</i> spp.
B.506	VIP3 <i>Trialeurodes</i> spp.
B.507	VIP3 <i>Lyriomyza</i> spp.
B.508	VIP3 <i>Oscinella</i> spp.
B.509	VIP3 <i>Phorbia</i> spp.
B.510	VIP3 <i>Frankliniella</i> spp.
B.511	VIP3 <i>Thrips</i> spp.
B.512	VIP3 <i>Scirtothrips aurantii</i>
B.513	VIP3 <i>Aceria</i> spp.
B.514	VIP3 <i>Acidus</i> spp.
B.515	VIP3 <i>Brevipalpus</i> spp.
B.516	VIP3 <i>Panonychus</i> spp.
B.517	VIP3 <i>Phyllocoptruta</i> spp.
B.518	VIP3 <i>Tetranychus</i> spp.
B.519	VIP3 <i>Heterodera</i> spp.
B.520	VIP3 <i>Meloidogyne</i> spp.
B.521	GI. <i>Adoxophyes</i> spp.
B.522	GI. <i>Agrotis</i> spp.

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TABLE B-continued

AP	Control of
B.523	GL <i>Alabama argillaceae</i>
B.524	GI. <i>Anticarsia gemmatilis</i>
B.525	GI. <i>Chilo</i> spp.
B.526	GI. <i>Clysia ambiguella</i>
B.527	GI. <i>Crocidolomia binotalis</i>
B.528	GL <i>Cydia</i> spp.
B.529	GI. <i>Diparopsis castanea</i>
B.530	GI. <i>Earias</i> spp.
B.531	GI. <i>Ephestia</i> spp.
B.532	GL <i>Heliothis</i> spp.
B.533	GL <i>Heliothis undalis</i>
B.534	GL <i>Keiferia lycopersicella</i>
B.535	GI. <i>Leucophaea scitella</i>
B.536	GL <i>Lithocolletis</i> spp.
B.537	GL <i>Lobesia botrana</i>
B.538	GL <i>Ostrinia nubilalis</i>
B.539	GL <i>Pandemis</i> spp.
B.540	GL <i>Pectinophora gossypi</i>
B.541	GL <i>Phyllocnistis citrella</i>
B.542	GL <i>Pieris</i> spp.
B.543	GL <i>Plutella xylostella</i>
B.544	GL <i>Scirpophaga</i> spp.
B.545	GL <i>Sesamia</i> spp.
B.546	GL <i>Sparganothis</i> spp.
B.547	GI. <i>Spodoptera</i> spp.
B.548	GI. <i>Tortrix</i> spp.
B.549	GI. <i>Trichoplusia ni</i>
B.550	GI. <i>Agrotis</i> spp.
B.551	GI. <i>Anthonomus grandis</i>
B.552	GI. <i>Curculio</i> spp.
B.553	GL <i>Diabrotica balteata</i>
B.554	GL <i>Lepidoptera</i> spp.
B.555	GL <i>Lissorhoptrus</i> spp.
B.556	GL <i>Otiorynchus</i> spp.
B.557	GL <i>Aleurothrixus</i> spp.
B.558	GL <i>Aleyrodes</i> spp.
B.559	GI. <i>Aonidiella</i> spp.
B.560	GI. <i>Aphididae</i> spp.
B.561	GI. <i>Aphis</i> spp.
B.562	GL <i>Bemisia tabaci</i>
B.563	GL <i>Empoasca</i> spp.
B.564	GI. <i>Myzus</i> spp.
B.565	GI. <i>Nephotettix</i> spp.
B.566	GL <i>Nilaparvata</i> spp.
B.567	GL <i>Pseudococcus</i> spp.
B.568	GL <i>Psylla</i> spp.
B.569	GL <i>Quadrastipitatus</i> spp.
B.570	GI. <i>Schizaphis</i> spp.
B.571	GI. <i>Trialeurodes</i> spp.
B.572	GI. <i>Lyriomyza</i> spp.
B.573	GI. <i>Oscinella</i> spp.
B.574	GL <i>Phorbia</i> spp.
B.575	GL <i>Frankliniella</i> spp.
B.576	GL <i>Thrips</i> spp.
B.577	GL <i>Scirtothrips aurantii</i>
B.578	GL <i>Aceria</i> spp.
B.579	GL <i>Acidus</i> spp.
B.580	GL <i>Brevipalpus</i> spp.
B.581	GL <i>Panonychus</i> spp.
B.582	GI. <i>Phyllocoptruta</i> spp.
B.583	GI. <i>Tetranychus</i> spp.
B.584	GI. <i>Heterodera</i> spp.
B.585	GI. <i>Meloidogyne</i> spp.
B.586	PL <i>Adoxophyes</i> spp.
B.587	PL <i>Agrotis</i> spp.
B.588	PL <i>Alabama argillaceae</i>
B.589	PL <i>Anticarsia gemmatilis</i>
B.590	PL <i>Chilo</i> spp.
B.591	PL <i>Clysia ambiguella</i>
B.592	PL <i>Crocidolomia binotalis</i>
B.593	PL <i>Cydia</i> spp.
B.594	PL <i>Diparopsis castanea</i>
B.595	PL <i>Earias</i> spp.
B.596	PL <i>Ephestia</i> spp.
B.597	PL <i>Heliothis</i> spp.
B.598	PL <i>Heliothis undalis</i>
B.599	PL <i>Keiferia lycopersicella</i>

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TABLE B-continued

AP	Control of
B.600	PL <i>Leucopiera sciella</i>
B.601	PL <i>Lithocolletis</i> spp.
B.602	PL <i>Lobesia botrana</i>
B.603	PL <i>Ostrinia nubilalis</i>
B.604	PL <i>Pandemis</i> spp.
B.605	PL <i>Pectinophora gossyp.</i>
B.606	PL <i>Phyllocnistis citrella</i>
B.607	PL <i>Pieris</i> spp.
B.608	PL <i>Plutella xylostella</i>
B.609	PL <i>Scirpophaga</i> spp.
B.610	PL <i>Sesamia</i> spp.
B.611	PL <i>Sparganothis</i> spp.
B.612	PL <i>Spodoptera</i> spp.
B.613	PL <i>Tortrix</i> spp.
B.614	PL <i>Trichoplusia ni</i>
B.615	PL <i>Agrotis</i> spp.
B.616	PL <i>Anthonomus grandis</i>
B.617	PL <i>Curculio</i> spp.
B.618	PL <i>Diabrotica balteata</i>
B.619	PL <i>Leptinotarsa</i> spp.
B.620	PL <i>Lissorhoptrus</i> spp.
B.621	PL <i>Otiorynchus</i> spp.
B.622	PL <i>Aleurothrixus</i> spp.
B.623	PL <i>Aleyrodes</i> spp.
B.624	PL <i>Aonidiella</i> spp.
B.625	PL <i>Aphididae</i> spp.
B.626	PL <i>Aphis</i> spp.
B.627	PL <i>Bemisia tabaci</i>
B.628	PL <i>Empoasca</i> spp.
B.629	PL <i>Myzus</i> spp.
B.630	PL <i>Nephotettix</i> spp.
B.631	PL <i>Nilaparvata</i> spp.
B.632	PL <i>Pseudococcus</i> spp.
B.633	PL <i>Psylla</i> spp.
B.634	PL <i>Quadrastipidius</i> spp.
B.635	PL <i>Schizaphis</i> spp.
B.636	PL <i>Trialeurodes</i> spp.
B.637	PL <i>Lyriomyza</i> spp.
B.638	PL <i>Oscinella</i> spp.
B.639	PL <i>Phorbia</i> spp.
B.640	PL <i>Frankliniella</i> spp.
B.641	PL <i>Thrips</i> spp.
B.642	PL <i>Scirtothrips aurantii</i>
B.643	PL <i>Aceria</i> spp.
B.644	PL <i>Aculus</i> spp.
B.645	PL <i>Brevipalpus</i> spp.
B.646	PL <i>Panonychus</i> spp.
B.647	PL <i>Phyllocoptruta</i> spp.
B.648	PL <i>Tetranychus</i> spp.
B.649	PL <i>Heterodera</i> spp.
B.650	PL <i>Meloidogyne</i> spp.
B.651	XN <i>Adoxophyes</i> spp.
B.652	XN <i>Agrotis</i> spp.
B.653	XN <i>Alabama argillaceae</i>
B.654	XN <i>Anticarsia gemmatilis</i>
B.655	XN <i>Chilo</i> spp.
B.656	XN <i>Clysia ambigua</i>
B.657	XN <i>Crocidolomia binotalis</i>
B.658	XN <i>Cydia</i> spp.
B.659	XN <i>Diparopsis castanea</i>
B.660	XN <i>Farias</i> spp.
B.661	XN <i>Ephestia</i> spp.
B.662	XN <i>Heliothis</i> spp.
B.663	XN <i>Helicula indalis</i>
B.664	XN <i>Keiferia lycopersicella</i>
B.665	XN <i>Leucopiera sciella</i>
B.666	XN <i>Lithocolletis</i> spp.
B.667	XN <i>Lobesia botrana</i>
B.668	XN <i>Ostrinia nubilalis</i>
B.669	XN <i>Pandemis</i> spp.
B.670	XN <i>Pectinophora gossyp.</i>
B.671	XN <i>Phyllocnistis citrella</i>
B.672	XN <i>Pieris</i> spp.
B.673	XN <i>Plutella xylostella</i>
B.674	XN <i>Scirpophaga</i> spp.
B.675	XN <i>Sesamia</i> spp.
B.676	XN <i>Sparganothis</i> spp.

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TABLE B-continued

AP	Control of
B.677	XN <i>Spodoptera</i> spp.
B.678	XN <i>Tortrix</i> spp.
B.679	XN <i>Trichoplusia ni</i>
B.680	XN <i>Agrotis</i> spp.
B.681	XN <i>Anthonomus grandis</i>
B.682	XN <i>Curculio</i> spp.
B.683	XN <i>Diabrotica balteata</i>
B.684	XN <i>Leptinotarsa</i> spp.
B.685	XN <i>Lissorhoptrus</i> spp.
B.686	XN <i>Otiorynchus</i> spp.
B.687	XN <i>Aleurothrixus</i> spp.
B.688	XN <i>Aleyrodes</i> spp.
B.689	XN <i>Aonidiella</i> spp.
B.690	XN <i>Aphididae</i> spp.
B.691	XN <i>Aphis</i> spp.
B.692	XN <i>Bemisia tabaci</i>
B.693	XN <i>Empoasca</i> spp.
B.694	XN <i>Myzus</i> spp.
B.695	XN <i>Nephotettix</i> spp.
B.696	XN <i>Nilaparvata</i> spp.
B.697	XN <i>Pseudococcus</i> spp.
B.698	XN <i>Psylla</i> spp.
B.699	XN <i>Quadrastipidius</i> spp.
B.700	XN <i>Schizaphis</i> spp.
B.701	XN <i>Trialeurodes</i> spp.
B.702	XN <i>Lyriomyza</i> spp.
B.703	XN <i>Oscinella</i> spp.
B.704	XN <i>Phorbia</i> spp.
B.705	XN <i>Frankliniella</i> spp.
B.706	XN <i>Thrips</i> spp.
B.707	XN <i>Scirtothrips aurantii</i>
B.708	XN <i>Aceria</i> spp.
B.709	XN <i>Aculus</i> spp.
B.710	XN <i>Brevipalpus</i> spp.
B.711	XN <i>Panonychus</i> spp.
B.712	XN <i>Phyllocoptruta</i> spp.
B.713	XN <i>Tetranychus</i> spp.
B.714	XN <i>Heterodera</i> spp.
B.715	XN <i>Meloidogyne</i> spp.
B.716	Pinh. <i>Adoxophyes</i> spp.
B.717	Pinh. <i>Agrotis</i> spp.
B.718	Pinh. <i>Alabama argillaceae</i>
B.719	Pinh. <i>Anticarsia gemmatilis</i>
B.720	Pinh. <i>Chilo</i> spp.
B.721	Pinh. <i>Clysia ambigua</i>
B.722	Pinh. <i>Crocidolomia binotalis</i>
B.723	Pinh. <i>Cydia</i> spp.
B.724	Pinh. <i>Diparopsis castanea</i>
B.725	Pinh. <i>Farias</i> spp.
B.726	Pinh. <i>Ephestia</i> spp.
B.727	Pinh. <i>Heliothis</i> spp.
B.728	Pinh. <i>Helicula indalis</i>
B.729	Pinh. <i>Keiferia lycopersicella</i>
B.730	Pinh. <i>Leucopiera sciella</i>
B.731	Pinh. <i>Lithocolletis</i> spp.
B.732	Pinh. <i>Lobesia botrana</i>
B.733	Pinh. <i>Ostrinia nubilalis</i>
B.734	Pinh. <i>Pandemis</i> spp.
B.735	Pinh. <i>Pectinophora gossyp.</i>
B.736	Pinh. <i>Phyllocnistis citrella</i>
B.737	Pinh. <i>Pieris</i> spp.
B.738	Pinh. <i>Plutella xylostella</i>
B.739	Pinh. <i>Scirpophaga</i> spp.
B.740	Pinh. <i>Sesamia</i> spp.
B.741	Pinh. <i>Sparganothis</i> spp.
B.742	Pinh. <i>Spodoptera</i> spp.
B.743	Pinh. <i>Tortrix</i> spp.
B.744	Pinh. <i>Trichoplusia ni</i>
B.745	Pinh. <i>Agrotis</i> spp.
B.746	Pinh. <i>Anthonomus grandis</i>
B.747	Pinh. <i>Curculio</i> spp.
B.748	Pinh. <i>Diabrotica balteata</i>
B.749	Pinh. <i>Leptinotarsa</i> spp.
B.750	Pinh. <i>Lissorhoptrus</i> spp.
B.751	Pinh. <i>Otiorynchus</i> spp.
B.752	Pinh. <i>Aleurothrixus</i> spp.
B.753	Pinh. <i>Aleyrodes</i> spp.

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TABLE B-continued

AP	Control of
B.754	Pluh. <i>Aonidiella</i> spp.
B.755	Pluh. <i>Aphididae</i> spp.
B.756	Pluh. <i>Aphis</i> spp.
B.757	Pluh. <i>Bemisia tabaci</i>
B.758	Pluh. <i>Empoasca</i> spp.
B.759	Pluh. <i>Mycus</i> spp.
B.760	Pluh. <i>Nephotettix</i> spp.
B.761	Pluh. <i>Nilaparvata</i> spp.
B.762	Pluh. <i>Pseudococcus</i> spp.
B.763	Pluh. <i>Psylla</i> spp.
B.764	Pluh. <i>Quadrastipidiatus</i> spp.
B.765	Pluh. <i>Schizaphis</i> spp.
B.766	Pluh. <i>Trialeurodes</i> spp.
B.767	Pluh. <i>Lyriomyza</i> spp.
B.768	Pluh. <i>Oscinella</i> spp.
B.769	Pluh. <i>Phorbia</i> spp.
B.770	Pluh. <i>Frankliniella</i> spp.
B.771	Pluh. <i>Thrips</i> spp.
B.772	Pluh. <i>Scirtothrips aurantii</i>
B.773	Pluh. <i>Aceria</i> spp.
B.774	Pluh. <i>Aculus</i> spp.
B.775	Pluh. <i>Brevipalpus</i> spp.
B.776	Pluh. <i>Panonychus</i> spp.
B.777	Pluh. <i>Phyllocoptruta</i> spp.
B.778	Pluh. <i>Tetranychus</i> spp.
B.779	Pluh. <i>Heterodera</i> spp.
B.780	Pluh. <i>Meloidogyne</i> spp.
B.781	Pluh. <i>Adoxophyes</i> spp.
B.782	Pluh. <i>Agrotis</i> spp.
B.783	Pluh. <i>Alabama argillaceae</i>
B.784	Pluh. <i>Anticarsia gemmatilis</i>
B.785	Pluh. <i>Chilo</i> spp.
B.786	Pluh. <i>Clytia ambiguella</i>
B.787	Pluh. <i>Crocidolomia binotalis</i>
B.788	Pluh. <i>Cydia</i> spp.
B.789	Pluh. <i>Diparopsis castanea</i>
B.790	Pluh. <i>Earias</i> spp.
B.791	Pluh. <i>Ephestia</i> spp.
B.792	Pluh. <i>Heliothis</i> spp.
B.793	Pluh. <i>Heliothis virescens</i>
B.794	Pluh. <i>Keiferia lycopersicella</i>
B.795	Pluh. <i>Leucophaea scitella</i>
B.796	Pluh. <i>Lithocolletis</i> spp.
B.797	Pluh. <i>Lobesia botrana</i>
B.798	Pluh. <i>Ostrinia nubilalis</i>
B.799	Pluh. <i>Pandemis</i> spp.
B.800	Pluh. <i>Pectinophora gossypi</i>
B.801	Pluh. <i>Phyllocnistis citrella</i>
B.802	Pluh. <i>Pieris</i> spp.
B.803	Pluh. <i>Plutella xylostella</i>
B.804	Pluh. <i>Scirpophaga</i> spp.
B.805	Pluh. <i>Sesamia</i> spp.
B.806	Pluh. <i>Sparganothis</i> spp.
B.807	Pluh. <i>Spodoptera</i> spp.
B.808	Pluh. <i>Tortrix</i> spp.
B.809	Pluh. <i>Trichoplusia ni</i>
B.810	Pluh. <i>Agrotis</i> spp.
B.811	Pluh. <i>Anthonomus grandis</i>
B.812	Pluh. <i>Curculio</i> spp.
B.813	Pluh. <i>Diabrotica balteata</i>
B.814	Pluh. <i>Leptinotarsa</i> spp.
B.815	Pluh. <i>Lissorhoptrus</i> spp.
B.816	Pluh. <i>Otiorynchus</i> spp.
B.817	Pluh. <i>Neurothrips</i> spp.
B.818	Pluh. <i>Aleyrodes</i> spp.
B.819	Pluh. <i>Aonidiella</i> spp.
B.820	Pluh. <i>Aphididae</i> spp.
B.821	Pluh. <i>Aphis</i> spp.
B.822	Pluh. <i>Bemisia tabaci</i>
B.823	Pluh. <i>Empoasca</i> spp.
B.824	Pluh. <i>Mycus</i> spp.
B.825	Pluh. <i>Nephotettix</i> spp.
B.826	Pluh. <i>Nilaparvata</i> spp.
B.827	Pluh. <i>Pseudococcus</i> spp.
B.828	Pluh. <i>Psylla</i> spp.
B.829	Pluh. <i>Quadrastipidiatus</i> spp.
B.830	Pluh. <i>Schizaphis</i> spp.

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TABLE B-continued

AP	Control of
B.831	Pluh. <i>Trialeurodes</i> spp.
B.832	Pluh. <i>Lyriomyza</i> spp.
B.833	Pluh. <i>Oscinella</i> spp.
B.834	Pluh. <i>Phorbia</i> spp.
B.835	Pluh. <i>Frankliniella</i> spp.
B.836	Pluh. <i>Thrips</i> spp.
B.837	Pluh. <i>Scirtothrips aurantii</i>
B.838	Pluh. <i>Aceria</i> spp.
B.839	Pluh. <i>Aculus</i> spp.
B.840	Pluh. <i>Brevipalpus</i> spp.
B.841	Pluh. <i>Panonychus</i> spp.
B.842	Pluh. <i>Phyllocoptruta</i> spp.
B.843	Pluh. <i>Tetranychus</i> spp.
B.844	Pluh. <i>Heterodera</i> spp.
B.845	Pluh. <i>Meloidogyne</i> spp.
B.846	Pluh. <i>Adoxophyes</i> spp.
B.847	Pluh. <i>Agrotis</i> spp.
B.848	Pluh. <i>Alabama argillaceae</i>
B.849	Pluh. <i>Anticarsia gemmatilis</i>
B.850	Pluh. <i>Chilo</i> spp.
B.851	Pluh. <i>Clytia ambiguella</i>
B.852	Pluh. <i>Crocidolomia binotalis</i>
B.853	Pluh. <i>Cydia</i> spp.
B.854	Pluh. <i>Diparopsis castanea</i>
B.855	Pluh. <i>Earias</i> spp.
B.856	Pluh. <i>Ephestia</i> spp.
B.857	Pluh. <i>Heliothis</i> spp.
B.858	Pluh. <i>Heliothis virescens</i>
B.859	Pluh. <i>Keiferia lycopersicella</i>
B.860	Pluh. <i>Leucophaea scitella</i>
B.861	Pluh. <i>Lithocolletis</i> spp.
B.862	Pluh. <i>Lobesia botrana</i>
B.863	Pluh. <i>Ostrinia nubilalis</i>
B.864	Pluh. <i>Pandemis</i> spp.
B.865	Pluh. <i>Pectinophora gossypi</i>
B.866	Pluh. <i>Phyllocnistis citrella</i>
B.867	Pluh. <i>Pieris</i> spp.
B.868	Pluh. <i>Plutella xylostella</i>
B.869	Pluh. <i>Scirpophaga</i> spp.
B.870	Pluh. <i>Sesamia</i> spp.
B.871	Pluh. <i>Sparganothis</i> spp.
B.872	Pluh. <i>Spodoptera</i> spp.
B.873	Pluh. <i>Tortrix</i> spp.
B.874	Pluh. <i>Trichoplusia ni</i>
B.875	Pluh. <i>Agrotis</i> spp.
B.876	Pluh. <i>Anthonomus grandis</i>
B.877	Pluh. <i>Curculio</i> spp.
B.878	Pluh. <i>Diabrotica balteata</i>
B.879	Pluh. <i>Leptinotarsa</i> spp.
B.880	Pluh. <i>Lissorhoptrus</i> spp.
B.881	Pluh. <i>Otiorynchus</i> spp.
B.882	Pluh. <i>Neurothrips</i> spp.
B.883	Pluh. <i>Aleyrodes</i> spp.
B.884	Pluh. <i>Aonidiella</i> spp.
B.885	Pluh. <i>Aphididae</i> spp.
B.886	Pluh. <i>Aphis</i> spp.
B.887	Pluh. <i>Bemisia tabaci</i>
B.888	Pluh. <i>Empoasca</i> spp.
B.889	Pluh. <i>Mycus</i> spp.
B.890	Pluh. <i>Nephotettix</i> spp.
B.891	Pluh. <i>Nilaparvata</i> spp.
B.892	Pluh. <i>Pseudococcus</i> spp.
B.893	Pluh. <i>Psylla</i> spp.
B.894	Pluh. <i>Quadrastipidiatus</i> spp.
B.895	Pluh. <i>Schizaphis</i> spp.
B.896	Pluh. <i>Trialeurodes</i> spp.
B.897	Pluh. <i>Lyriomyza</i> spp.
B.898	Pluh. <i>Oscinella</i> spp.
B.899	Pluh. <i>Phorbia</i> spp.
B.900	Pluh. <i>Frankliniella</i> spp.
B.901	Pluh. <i>Thrips</i> spp.
B.902	Pluh. <i>Scirtothrips aurantii</i>
B.903	Pluh. <i>Aceria</i> spp.
B.904	Pluh. <i>Aculus</i> spp.
B.905	Pluh. <i>Brevipalpus</i> spp.
B.906	Pluh. <i>Panonychus</i> spp.
B.907	Pluh. <i>Phyllocoptruta</i> spp.

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TABLE B-continued

AP	Control of
B.908	Aggl. <i>Tetranychus</i> spp.
B.909	Aggl. <i>Heterodera</i> spp.
B.910	Aggl. <i>Meloidogyne</i> spp.
B.911	CO <i>Adoxophyes</i> spp.
B.912	CO <i>Agrotis</i> spp.
B.913	CO <i>Alabama argillaceae</i>
B.914	CO <i>Anticarsia gemmatilis</i>
B.915	CO <i>Chilo</i> spp.
B.916	CO <i>Clysia ambiguella</i>
B.917	CO <i>Crocidolomia binotalis</i>
B.918	CO <i>Cydia</i> spp.
B.919	CO <i>Diparopsis castanea</i>
B.920	CO <i>Earias</i> spp.
B.921	CO <i>Ephestia</i> spp.
B.922	CO <i>Heliothis</i> spp.
B.923	CO <i>Heliothis undalis</i>
B.924	CO <i>Keiferia lycopersicella</i>
B.925	CO <i>Leucophaea scitella</i>
B.926	CO <i>Lithocolletis</i> spp.
B.927	CO <i>Lobesia botrana</i>
B.928	CO <i>Ostrinia nubilalis</i>
B.929	CO <i>Pandemis</i> spp.
B.930	CO <i>Pectinophora gossypi</i>
B.931	CO <i>Phyllocnistis citrella</i>
B.932	CO <i>Pieris</i> spp.
B.933	CO <i>Plutella xylostella</i>
B.934	CO <i>Scirpophaga</i> spp.
B.935	CO <i>Sesamia</i> spp.
B.936	CO <i>Sparganothis</i> spp.
B.937	CO <i>Spodoptera</i> spp.
B.938	CO <i>Tortrix</i> spp.
B.939	CO <i>Trichoplusia ni</i>
B.940	CO <i>Agrotis</i> spp.
B.941	CO <i>Anthonomus grandis</i>
B.942	CO <i>Curculio</i> spp.
B.943	CO <i>Diabrotica balteata</i>
B.944	CO <i>Leptinotarsa</i> spp.
B.945	CO <i>Lissorhopus</i> spp.
B.946	CO <i>Otiorynchus</i> spp.
B.947	CO <i>Aleurothrixus</i> spp.
B.948	CO <i>Aleyrodes</i> spp.
B.949	CO <i>Aonidiella</i> spp.
B.950	CO <i>Aphididae</i> spp.
B.951	CO <i>Aphis</i> spp.
B.952	CO <i>Bemisia tabaci</i>
B.953	CO <i>Empoasca</i> spp.
B.954	CO <i>Myzus</i> spp.
B.955	CO <i>Nephotettix</i> spp.
B.956	CO <i>Nilaparvata</i> spp.
B.957	CO <i>Pseudococcus</i> spp.
B.958	CO <i>Psylla</i> spp.
B.959	CO <i>Quadrastipidiatus</i> spp.
B.960	CO <i>Schizaphis</i> spp.
B.961	CO <i>Trialeurodes</i> spp.
B.962	CO <i>Lyriomyza</i> spp.
B.963	CO <i>Oscinella</i> spp.
B.964	CO <i>Phorbia</i> spp.
B.965	CO <i>Frankliniella</i> spp.
B.966	CO <i>Thrips</i> spp.
B.967	CO <i>Scirtothrips aurantii</i>
B.968	CO <i>Aceria</i> spp.
B.969	CO <i>Aculus</i> spp.
B.970	CO <i>Brevipalpus</i> spp.
B.971	CO <i>Panonychus</i> spp.
B.972	CO <i>Phyllocoptruta</i> spp.
B.973	CO <i>Tetranychus</i> spp.
B.974	CO <i>Heterodera</i> spp.
B.975	CO <i>Meloidogyne</i> spp.
B.976	CH <i>Adoxophyes</i> spp.
B.977	CH <i>Agrotis</i> spp.
B.978	CH <i>Alabama argillaceae</i>
B.979	CH <i>Anticarsia gemmatilis</i>
B.980	CH <i>Chilo</i> spp.
B.981	CH <i>Clysia ambiguella</i>
B.982	CH <i>Crocidolomia binotalis</i>
B.983	CH <i>Cydia</i> spp.
B.984	CH <i>Diparopsis castanea</i>

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TABLE B-continued

AP	Control of
B.985	CH <i>Earias</i> spp.
B.986	CH <i>Ephestia</i> spp.
B.987	CH <i>Heliothis</i> spp.
B.988	CH <i>Heliothis undalis</i>
B.989	CH <i>Keiferia lycopersicella</i>
B.990	CH <i>Leucophaea scitella</i>
B.991	CH <i>Lithocolletis</i> spp.
B.992	CH <i>Lobesia botrana</i>
B.993	CH <i>Ostrinia nubilalis</i>
B.994	CH <i>Pandemis</i> spp.
B.995	CH <i>Pectinophora gossypi</i>
B.996	CH <i>Phyllocnistis citrella</i>
B.997	CH <i>Pieris</i> spp.
B.998	CH <i>Plutella xylostella</i>
B.999	CH <i>Scirpophaga</i> spp.
B.1000	CH <i>Sesamia</i> spp.
B.1001	CH <i>Sparganothis</i> spp.
B.1002	CH <i>Spodoptera</i> spp.
B.1003	CH <i>Tortrix</i> spp.
B.1004	CH <i>Trichoplusia ni</i>
B.1005	CH <i>Agrotis</i> spp.
B.1006	CH <i>Anthonomus grandis</i>
B.1007	CH <i>Curculio</i> spp.
B.1008	CH <i>Diabrotica balteata</i>
B.1009	CH <i>Leptinotarsa</i> spp.
B.1010	CH <i>Lissorhopus</i> spp.
B.1011	CH <i>Otiorynchus</i> spp.
B.1012	CH <i>Aleurothrixus</i> spp.
B.1013	CH <i>Aleyrodes</i> spp.
B.1014	CH <i>Aonidiella</i> spp.
B.1015	CH <i>Aphididae</i> spp.
B.1016	CH <i>Aphis</i> spp.
B.1017	CH <i>Bemisia tabaci</i>
B.1018	CH <i>Empoasca</i> spp.
B.1019	CH <i>Myzus</i> spp.
B.1020	CH <i>Nephotettix</i> spp.
B.1021	CH <i>Nilaparvata</i> spp.
B.1022	CH <i>Pseudococcus</i> spp.
B.1023	CH <i>Psylla</i> spp.
B.1024	CH <i>Quadrastipidiatus</i> spp.
B.1025	CH <i>Schizaphis</i> spp.
B.1026	CH <i>Trialeurodes</i> spp.
B.1027	CH <i>Lyriomyza</i> spp.
B.1028	CH <i>Oscinella</i> spp.
B.1029	CH <i>Phorbia</i> spp.
B.1030	CH <i>Frankliniella</i> spp.
B.1031	CH <i>Thrips</i> spp.
B.1032	CH <i>Scirtothrips aurantii</i>
B.1033	CH <i>Aceria</i> spp.
B.1034	CH <i>Aculus</i> spp.
B.1035	CH <i>Brevipalpus</i> spp.
B.1036	CH <i>Panonychus</i> spp.
B.1037	CH <i>Phyllocoptruta</i> spp.
B.1038	CH <i>Tetranychus</i> spp.
B.1039	CH <i>Heterodera</i> spp.
B.1040	CH <i>Meloidogyne</i> spp.
B.1041	SS <i>Adoxophyes</i> spp.
B.1042	SS <i>Agrotis</i> spp.
B.1043	SS <i>Alabama argillaceae</i>
B.1044	SS <i>Anticarsia gemmatilis</i>
B.1045	SS <i>Chilo</i> spp.
B.1046	SS <i>Clysia ambiguella</i>
B.1047	SS <i>Crocidolomia binotalis</i>
B.1048	SS <i>Cydia</i> spp.
B.1049	SS <i>Diparopsis castanea</i>
B.1050	SS <i>Earias</i> spp.
B.1051	SS <i>Ephestia</i> spp.
B.1052	SS <i>Heliothis</i> spp.
B.1053	SS <i>Heliothis undalis</i>
B.1054	SS <i>Keiferia lycopersicella</i>
B.1055	SS <i>Leucophaea scitella</i>
B.1056	SS <i>Lithocolletis</i> spp.
B.1057	SS <i>Lobesia botrana</i>
B.1058	SS <i>Ostrinia nubilalis</i>
B.1059	SS <i>Pandemis</i> spp.
B.1060	SS <i>Pectinophora gossypi</i>
B.1061	SS <i>Phyllocnistis citrella</i>

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TABLE B-continued

AP	Control of
B.1062	SS <i>Pieris</i> spp.
B.1063	SS <i>Plutella xylostella</i>
B.1064	SS <i>Scirpophaga</i> spp.
B.1065	SS <i>Sesamia</i> spp.
B.1066	SS <i>Sparganothis</i> spp.
B.1067	SS <i>Spodoptera</i> spp.
B.1068	SS <i>Tortrix</i> spp.
B.1069	SS <i>Trichoplusia ni</i>
B.1070	SS <i>Agrotis</i> spp.
B.1071	SS <i>Anthonomus grandis</i>
B.1072	SS <i>Curculio</i> spp.
B.1073	SS <i>Diabrotica balteata</i>
B.1074	SS <i>Leptinotarsa</i> spp.
B.1075	SS <i>Lissorhoptrus</i> spp.
B.1076	SS <i>Otiorynchus</i> spp.
B.1077	SS <i>Aleurothrixus</i> spp.
B.1078	SS <i>Aleyrodes</i> spp.
B.1079	SS <i>Aonidiella</i> spp.
B.1080	SS <i>Aphididae</i> spp.
B.1081	SS <i>Aphis</i> spp.
B.1082	SS <i>Bemisia tabaci</i>
B.1083	SS <i>Empoasca</i> spp.
B.1084	SS <i>Mycus</i> spp.
B.1085	SS <i>Nephotettix</i> spp.
B.1086	SS <i>Nilaparvata</i> spp.
B.1087	SS <i>Pseudococcus</i> spp.
B.1088	SS <i>Psylla</i> spp.
B.1089	SS <i>Quadraspidiotus</i> spp.
B.1090	SS <i>Schizaphis</i> spp.
B.1091	SS <i>Trialeurodes</i> spp.
B.1092	SS <i>Lyriomyza</i> spp.
B.1093	SS <i>Oscinella</i> spp.
B.1094	SS <i>Phorbia</i> spp.
B.1095	SS <i>Frankliniella</i> spp.
B.1096	SS <i>Thrips</i> spp.
B.1097	SS <i>Scirtothrips aurantii</i>
B.1098	SS <i>Aceria</i> spp.
B.1099	SS <i>Aculus</i> spp.
B.1100	SS <i>Brevipalpus</i> spp.
B.1101	SS <i>Panonychus</i> spp.
B.1102	SS <i>Phyllocoptruta</i> spp.
B.1103	SS <i>Tetranychus</i> spp.
B.1104	SS <i>Heterodera</i> spp.
B.1105	SS <i>Meloidogyne</i> spp.
B.1106	HO <i>Adoxophyes</i> spp.
B.1107	HO <i>Agrotis</i> spp.
B.1108	HO <i>Alabama argillaceae</i>
B.1109	HO <i>Anticarsia gemmatilis</i>
B.1110	HO <i>Chilo</i> spp.
B.1111	HO <i>Clysia ambiguaella</i>
B.1112	HO <i>Crocidolomia binotalis</i>
B.1113	HO <i>Cydia</i> spp.
B.1114	HO <i>Diparopsis castanea</i>
B.1115	HO <i>Earias</i> spp.
B.1116	HO <i>Ephesia</i> spp.
B.1117	HO <i>Heliothis</i> spp.
B.1118	HO <i>Helius undalis</i>
B.1119	HO <i>Keiferia lycopersicella</i>
B.1120	HO <i>Leucoptera scitella</i>
B.1121	HO <i>Lithocolletis</i> spp.
B.1122	HO <i>Lobesia botrana</i>
B.1123	HO <i>Ostrinia nubilalis</i>
B.1124	HO <i>Pandemis</i> spp.
B.1125	HO <i>Pectinophora gossypiella</i>
B.1126	HO <i>Phyllocnistis citrella</i>
B.1127	HO <i>Pieris</i> spp.
B.1128	HO <i>Plutella xylostella</i>
B.1129	HO <i>Scirpophaga</i> spp.
B.1130	HO <i>Sesamia</i> spp.
B.1131	HO <i>Sparganothis</i> spp.
B.1132	HO <i>Spodoptera</i> spp.
B.1133	HO <i>Tortrix</i> spp.
B.1134	HO <i>Trichoplusia ni</i>
B.1135	HO <i>Agrotis</i> spp.
B.1136	HO <i>Anthonomus grandis</i>
B.1137	HO <i>Curculio</i> spp.
B.1138	HO <i>Diabrotica balteata</i>

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TABLE B-continued

AP	Control of
B.1139	HO <i>Leptinotarsa</i> spp.
B.1140	HO <i>Lissorhoptrus</i> spp.
B.1141	HO <i>Otiorynchus</i> spp.
B.1142	HO <i>Aleurothrixus</i> spp.
B.1143	HO <i>Aleyrodes</i> spp.
B.1144	HO <i>Aonidiella</i> spp.
B.1145	HO <i>Aphididae</i> spp.
B.1146	HO <i>Aphis</i> spp.
B.1147	HO <i>Bemisia tabaci</i>
B.1148	HO <i>Empoasca</i> spp.
B.1149	HO <i>Mycus</i> spp.
B.1150	HO <i>Nephotettix</i> spp.
B.1151	HO <i>Nilaparvata</i> spp.
B.1152	HO <i>Pseudococcus</i> spp.
B.1153	HO <i>Psylla</i> spp.
B.1154	HO <i>Quadraspidiotus</i> spp.
B.1155	HO <i>Schizaphis</i> spp.
B.1156	HO <i>Trialeurodes</i> spp.
B.1157	HO <i>Lyriomyza</i> spp.
B.1158	HO <i>Oscinella</i> spp.
B.1159	HO <i>Phorbia</i> spp.
B.1160	HO <i>Frankliniella</i> spp.
B.1161	HO <i>Thrips</i> spp.
B.1162	HO <i>Scirtothrips aurantii</i>
B.1163	HO <i>Aceria</i> spp.
B.1164	HO <i>Aculus</i> spp.
B.1165	HO <i>Brevipalpus</i> spp.
B.1166	HO <i>Panonychus</i> spp.
B.1167	HO <i>Phyllocoptruta</i> spp.
B.1168	HO <i>Tetranychus</i> spp.
B.1169	HO <i>Heterodera</i> spp.
B.1170	HO <i>Meloidogyne</i> spp.

The following abbreviations are used in the table:

Active Principle of transgenic plant: AP

Photobacterium luminescens: PL

Xenorhabdus nematophilus: XN

35 Proteinase Inhibitors: PInh.

Plant lectins: PLec.

Agglutinins: Aggl.

3-Hydroxysteroid oxidase: HO

Cholesterol oxidase: CO

Chitinase: CH

40 Glucanase: GL

Stilbensynthase: SS

Biological Examples

45 Table 1: A method of controlling pests comprising the application of thiamethoxam to transgenic cotton, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

50 Table 2: A method of controlling pests comprising the application of thiamethoxam to transgenic rice, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

55 Table 3: A method of controlling pests comprising the application of thiamethoxam to transgenic potatoes, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

60 Table 4: A method of controlling pests comprising the application of thiamethoxam to transgenic *brassica*, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 28: A method of controlling pests comprising the application of Ti-435 to transgenic rice, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 29: A method of controlling pests comprising the application of Ti-435 to transgenic potatoes, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table 13.

Table 30: A method of controlling pests comprising the application of Ti-435 to transgenic *brassica*, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 31: A method of controlling pests comprising the application of Ti-435 to transgenic tomatoes, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 32: A method of controlling pests comprising the application of Ti-435 to transgenic cucurbits, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B. 1170 of table B.

Table 33: A method of controlling pests comprising the application of ¹¹I-435 to transgenic soybeans, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 34: A method of controlling pests comprising the application of Ti-435 to transgenic maize, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 35: A method of controlling pests comprising the application of T1-435 to transgenic wheat, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 36: A method of controlling pests comprising the application of Ti-435 to transgenic bananas, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 37: A method of controlling pests comprising the application of TI-435 to transgenic citrus trees, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 38: A method of controlling pests comprising the application of Ti-435 to transgenic pome fruit trees, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 39: A method of controlling pests comprising the application of thiocloprid to transgenic cotton, wherein the combination of the active principle expressed by the trans-

genic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 40: A method of controlling pests comprising the application of thiacloprid to transgenic rice, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 41: A method of controlling pests comprising the application of thiacloprid to transgenic potatoes, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 42: A method of controlling pests comprising the application of thiacloprid to transgenic *brassica*, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B3.

Table 43: A method of controlling pests comprising the application of thiacloprid to transgenic tomatoes, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to any one of the individualised combinations B.1 to B.1170 of table B.

Table 44: A method of controlling pests comprising the application of thiacloprid to transgenic cucurbits, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 45: A method of controlling pests comprising the application of thiacloprid to transgenic soybeans, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 46: A method of controlling pests comprising the application of thiocloprid to transgenic maize, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 47: A method of controlling pests comprising the application of thiocloprid to transgenic wheat, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

Table 48: A method of controlling pests comprising the application of thiacloprid to transgenic bananas, wherein the combination of the active principle expressed by the transgenic plant and the pest to be controlled correspond to anyone of the individualised combinations B.1 to B.1170 of table B.

TABLE C

	Principle	Tolerant to	Crop
C.1	ALS	Sulfonylureas etc. ***	Cotton
C.2	ALS	Sulfonylureas etc. ***	Rice
C.3	ALS	Sulfonylureas etc. ***	Brassica
C.4	ALS	Sulfonylureas etc. ***	Potatoes
C.5	ALS	Sulfonylureas etc. ***	Tomatoes
C.6	ALS	Sulfonylureas etc. ***	Cucurbits
C.7	ALS	Sulfonylureas etc. ***	Soybeans
C.8	ALS	Sulfonylureas etc. ***	Maize
C.9	ALS	Sulfonylureas etc. ***	Wheat

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TABLE C-continued

	Principle	Tolerant to	Crop
C.10	ALS	Sulfonylureas etc. ***	pome fruit
C.11	ALS	Sulfonylureas etc. ***	stone fruit
C.12	ALS	Sulfonylureas etc. ***	<i>citrus</i>
C.13	ACCCase	+++	Cotton
C.14	ACCCase	+++	Rice
C.15	ACCCase	+++	<i>Brassica</i>
C.16	ACCCase	+++	Potatoes
C.17	ACCCase	+++	Tomatoes
C.18	ACCCase	+++	Cucurbits
C.19	ACCCase	+++	Soybeans
C.20	ACCCase	+++	Maize
C.21	ACCCase	+++	Wheat
C.22	ACCCase	+++	pome fruit
C.23	ACCCase	+++	stone fruit
C.24	ACCCase	+++	<i>citrus</i>
C.25	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Cotton
C.26	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Rice
C.27	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	<i>Brassica</i>
C.28	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Potatoes
C.29	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Tomatoes
C.30	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Cucurbits
C.31	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Soybeans
C.32	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Maize
C.33	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	Wheat
C.34	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	pome fruit
C.35	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	stone fruit
C.36	HPPD	Isoxaflutol, Isoxachlortol, Sulcotrion, Mesotrion	<i>citrus</i>
C.37	Nitrilase	Bromoxynil, Ioxynil	Cotton
C.38	Nitrilase	Bromoxynil, Ioxynil	Rice
C.39	Nitrilase	Bromoxynil, Ioxynil	<i>Brassica</i>
C.40	Nitrilase	Bromoxynil, Ioxynil	Potatoes
C.41	Nitrilase	Bromoxynil, Ioxynil	Tomatoes
C.42	Nitrilase	Bromoxynil, Ioxynil	Cucurbits
C.43	Nitrilase	Bromoxynil, Ioxynil	Soybeans
C.44	Nitrilase	Bromoxynil, Ioxynil	Maize
C.45	Nitrilase	Bromoxynil, Ioxynil	Wheat
C.46	Nitrilase	Bromoxynil, Ioxynil	pome fruit
C.47	Nitrilase	Bromoxynil, Ioxynil	stone fruit
C.48	Nitrilase	Bromoxynil, Ioxynil	<i>citrus</i>
C.49	IPS	Chloroacetanilides &&&	Cotton
C.50	IPS	Chloroacetanilides &&&	Rice
C.51	IPS	Chloroacetanilide &&&s	<i>Brassica</i>
C.52	IPS	Chloroacetanilides &&&	Potatoes
C.53	IPS	Chloroacetanilides &&&	Tomatoes
C.54	IPS	Chloroacetanilides &&&	Cucurbits
C.55	IPS	Chloroacetanilides &&&	Soybeans
C.56	IPS	Chloroacetanilides &&&	Maize
C.57	IPS	Chloroacetanilides &&&	Wheat
C.58	IPS	Chloroacetanilides &&&	pome fruit
C.59	IPS	Chloroacetanilides &&&	stone fruit
C.60	IPS	Chloroacetanilides &&&	<i>citrus</i>
C.61	HOM	2,4-D, Mecoprop-P	Cotton
C.62	HOM	2,4-D, Mecoprop-P	Rice
C.63	HOM	2,4-D, Mecoprop-P	<i>Brassica</i>
C.64	HOM	2,4-D, Mecoprop-P	Potatoes
C.65	HOM	2,4-D, Mecoprop-P	Tomatoes
C.66	HOM	2,4-D, Mecoprop-P	Cucurbits
C.67	HOM	2,4-D, Mecoprop-P	Soybeans
C.68	HOM	2,4-D, Mecoprop-P	Maize
C.69	HOM	2,4-D, Mecoprop-P	Wheat
C.70	HOM	2,4-D, Mecoprop-P	pome fruit
C.71	HOM	2,4-D, Mecoprop-P	stone fruit
C.72	HOM	2,4-D, Mecoprop-P	<i>citrus</i>
C.73	PROTOX	Prototox inhibitors //	Cotton
C.74	PROTOX	Prototox inhibitors //	Rice

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TABLE C-continued

	Principle	Tolerant to	Crop
C.75	PROTOX	Prototox inhibitors //	<i>Brassica</i>
C.76	PROTOX	Prototox inhibitors //	Potatoes
C.77	PROTOX	Prototox inhibitors //	Tomatoes
C.78	PROTOX	Prototox inhibitors //	Cucurbits
C.79	PROTOX	Prototox inhibitors //	Soybeans
C.80	PROTOX	Prototox inhibitors //	Maize
C.81	PROTOX	Prototox inhibitors //	Wheat
C.82	PROTOX	Prototox inhibitors //	pome fruit
C.83	PROTOX	Prototox inhibitors //	stone fruit
C.84	PROTOX	Prototox inhibitors //	<i>citrus</i>
C.85	EPSPS	Glyphosate and/or Sulphosate	Cotton
C.86	EPSPS	Glyphosate and/or Sulphosate	Rice
C.87	EPSPS	Glyphosate and/or Sulphosate	<i>Brassica</i>
C.88	EPSPS	Glyphosate and/or Sulphosate	Potatoes
C.89	EPSPS	Glyphosate and/or Sulphosate	Tomatoes
C.90	EPSPS	Glyphosate and/or Sulphosate	Cucurbits
C.91	EPSPS	Glyphosate and/or Sulphosate	Soybeans
C.92	EPSPS	Glyphosate and/or Sulphosate	Maize
C.93	EPSPS	Glyphosate and/or Sulphosate	Wheat
C.94	EPSPS	Glyphosate and/or Sulphosate	pome fruit
C.95	EPSPS	Glyphosate and/or Sulphosate	stone fruit
C.96	EPSPS	Glyphosate and/or Sulphosate	<i>citrus</i>
C.97	GS	Glufosinate and/or Bialaphos	Cotton
C.98	GS	Glufosinate and/or Bialaphos	Rice
C.99	GS	Glufosinate and/or Bialaphos	<i>Brassica</i>
C.100	GS	Glufosinate and/or Bialaphos	Potatoes
C.101	GS	Glufosinate and/or Bialaphos	Tomatoes
C.102	GS	Glufosinate and/or Bialaphos	Cucurbits
C.103	GS	Glufosinate and/or Bialaphos	Soybeans
C.104	GS	Glufosinate and/or Bialaphos	Maize
C.105	GS	Glufosinate and/or Bialaphos	Wheat
C.106	GS	Glufosinate and/or Bialaphos	pome fruit
C.107	GS	Glufosinate and/or Bialaphos	stone fruit
C.108	GS	Glufosinate and/or Bialaphos	<i>citrus</i>

Abbreviations:
 Acetyl-CoA Carboxylase: ACCase
 Acetolactate Synthase: ALS
 Hydroxyphenylpyruvate dioxygenase: HPPD
 Inhibition of protein synthesis: IPS
 Hormone mimic: HO
 Glutamine Synthetase: GS
 Protoporphyrinogen oxidase: PROTOX
 5-Enolpyruvyl-3-Phosphoshikimate Synthase: EPSPS
 *** Included are Sulfonylureas, Imidazolinones, Triazopyrimidines, Dimethoxypyrimidines and N-Acylsulfonamides:
 Sulfonylureas such as Chlorsulfuron, Chlorimuron, Ethametsulfuron, Metsulfuron, Primisulfuron, Prosulfuron, Triasulfuron, Cinosulfuron, Trifluralin, Oxasulfuron, Bensulfuron, Tribenuron, ACC 322140, Fluzasulfuron, Ethoxysulfuron, Fluzasulfuron, Nicosulfuron, Rimsulfuron, Thifensulfuron, Pyrazosulfuron, Clopyrasulfuron, NC 330, Azimsulfuron, Imazosulfuron, Sulfosulfuron, Amidesulfuron, Flupyrasulfuron, CGA 362622
 Imidazolinones such as Imazamethabenz, Imazaquin, Imazamethypry, Imazetolapyr, Imazapyr and Imazamox
 Triazopyrimidines such as DE 511, Flumetsulam and Chloransulam
 Dimethoxypyrimidines such as Pyriithiobac, Pyriminobac, Bispyribac and Pyribenzoxim
 +++ Tolerant to Diclofop-methyl, Fluzifop-P-butyl, Haloxyfop-P-methyl, Haloxyfop-P-ethyl, Quizalafop-P-ethyl, clodinafop propargyl, fenoxaprop -ethyl, -Tepaloxym, Alloxym, Sethoxydim, Cycloxydim, Cloproxydim, Tralkoxydim, Butoxydim, Caloxydim, Clefoxydim, Clethodim, &&& Chloroacetanilides such as Alachlor, Acetochlor, Dimethenamid
 // Prototox inhibitors: For instance diphenylethers such as Acifluorfen
 55 Aclonifen, Bifenox, Chlormetofen, Ethoxyfen, Fluoroglycofen, Fomesafen, Lactofen, Oxyfluorfen; Imides such as Azafenidin, Carfentrazone-ethyl, Conidon-ethyl, Flumiclorac-pentyl, Flumioxazin, Fluthiacetmethyl, Oxadiazon, Oxadiazon, Pentoxazone, Sulfentrazone, Imides and others, such as Flumipropyn, Flupropacil, Nipyraclofen and Thidiazimin; and further Fluzolactate and Pyraflufen-ethyl

Biological Examples

Table 49: A method of controlling representatives of the genus *Adoxophyes* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by

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Table 92: A method of controlling representatives of the genus *Empoasca* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 93: A method of controlling representatives of the genus *Mycus* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 94: A method of controlling representatives of the genus *Nephotettix* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 95: A method of controlling representatives of the genus *Nilaparvata* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 96: A method of controlling representatives of the genus *Pseudococcus* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 97: A method of controlling representatives of the genus *Psylla* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 98: A method of controlling representatives of the genus *Quadraspidiotus* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 99: A method of controlling representatives of the genus *Schizaphis* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 100: A method of controlling representatives of the genus *Trialeurodes* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 101: A method of controlling representatives of the genus *Lyriomyza* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by

Table 111: A method of controlling representatives of the genus *Phyllocoptruta* comprising the application of thiamethoxam to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by

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the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 122: A method of controlling representatives of the genus *Cnephlocrocis* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

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Table 133: A method of controlling *Lobesia botrana* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 134: A method of controlling *Ostrinia nubilalis* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 135: A method of controlling representatives of the genus *Pandemis* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 136: A method of controlling *Pectinophora gossypiella* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 137: A method of controlling *Phyllocnistis citrella* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 138: A method of controlling representatives of the genus *Pieris* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 139: A method of controlling *Plutella xylostella* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 140: A method of controlling representatives of the genus *Scirpophaga* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 141: A method of controlling representatives of the genus *Sesamia* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 142: A method of controlling representatives of the genus *Sparganorhis* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 143: A method of controlling representatives of the genus *Spodoptera* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

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Table 155: A method of controlling representatives of the genus *Aonidiella* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 156: A method of controlling representatives of the family *Aphididae* comprising the application of imidacloprid to a hericidially resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 157: A method of controlling representatives of the genus *Aphis* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 158: A method of controlling *Bemisia tabaci* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 159: A method of controlling representatives of the genus *Empoasca* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 160: A method of controlling representatives of the genus *Mycus* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 161: A method of controlling representatives of the genus *Nephotettix* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to any one of the lines C.1 to C.108 of table C.

Table 162: A method of controlling representatives of the genus *Nilaparvata* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 163: A method of controlling representatives of the genus *Pseudococcus* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 164: A method of controlling representatives of the genus *Psylla* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 165: A method of controlling representatives of the genus *Quadraspidiotus* comprising the application of imidacloprid to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to any one of the lines C.1 to C.108 of table C.

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Table 199: A method of controlling *Ostrinia nubilalis* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 200: A method of controlling representatives of the genus *Pandemis* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 201: A method of controlling *Pectinophora gossypiella* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 202: A method of controlling *Phyllocnistis citrella* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 203: A method of controlling representatives of the genus *Pieris* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 204: A method of controlling *Plutella xylostella* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 205: A method of controlling representatives of the genus *Scirpophaga* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1. to C.108 of table C.

Table 206: A method of controlling representatives of the genus *Sesamia* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 207: A method of controlling representatives of the genus *Sparganothis* comprising the application of T1-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 208: A method of controlling representatives of the genus *Spodoptera* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 209: A method of controlling representatives of the genus *Tortrix* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

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Table 243: A method of controlling representatives of the genus *Phyllocoptruta* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 244: A method of controlling representatives of the genus *Tetranychus* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 245: A method of controlling representatives of the genus *Heterodera* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 246: A method of controlling representatives of the genus *Meloidogyne* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Table 247: A method of controlling *Mamestra brassica* comprising the application of Ti-435 to a herbicidally resistant transgenic crop, wherein the combination of the active principle expressed by the transgenic plant and the crop to be protected against the pest correspond to anyone of the lines C.1 to C.108 of table C.

Example B3

Action Against *Anthonomus grandis* adults,
Spodoptera littoralis or *Heliothis virescens*

Young transgenic cotton plants which express the δ -endotoxin CryIIIA are sprayed with an aqueous emulsion spray mixture comprising 100, 50, 10, 5, 1 ppm of imidacloprid respectively. After the spray coating has dried on, the cotton plants are populated with 10 adult *Anthonomus grandis*, 10 *Spodoptera littoralis* larvae or 10 *Heliothis virescens* larvae respectively and introduced into a plastic container. Evaluation takes place 3 to 10 days later. The percentage reduction in population, or the percentage reduction in feeding damage (% action), is determined by comparing the number of dead beetles and the feeding damage on the transgenic cotton plants with that of non-transgenic cotton plants which have been treated with an emulsion spray mixture comprising imidacloprid and conventional CryIIIA-toxin at a concentration of in each case 100, 50, 10, 5, 1 ppm respectively.

In this test, the control of the tested insects in the transgenic plant is superior to the control on the non-transgenic plant.

Example B2

Action Against *anthonomus grandis* adults,
spodoptera littoralis or *heliothis virescens*

Young transgenic cotton plants which express the δ -endotoxin CryIIIA are sprayed with an aqueous emulsion spray mixture comprising 100, 50, 10, 5, 1 ppm of thiamethoxam respectively. After the spray coating has dried on, the cotton plants are populated with 10 adult *Anthonomus grandis*, 10 *Spodoptera littoralis* larvae or 10 *Heliothis virescens* larvae respectively and introduced into a plastic container. Evaluation

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ation takes place 3 to 10 days later. The percentage reduction in population, or the percentage reduction in feeding damage (% action), is determined by comparing the number of dead beetles and the feeding damage on the transgenic cotton plants with that of non-transgenic cotton plants which have been treated with an emulsion spray mixture comprising thiamethoxam and conventional CryIIIA-toxin at a concentration of in each case 100, 50, 10, 5, 1 ppm respectively.

In this test, the control of the tested insects in the transgenic plant is superior, while it is insufficient in the non-transgenic plant.

Example B3

Action Against *Anthonomus grandis* adults,
Spodoptera littoralis or *Heliothis virescens*

Young transgenic cotton plants which express the δ -endotoxin CryIIIA are sprayed with an aqueous emulsion spray mixture comprising 100, 50, 10, 5, 1 ppm of Ti-435 respectively. After the spray coating has dried on, the cotton plants are populated with 10 adult *Anthonomus grandis*, 10 *Spodoptera littoralis* larvae or 10 *Heliothis virescens* larvae respectively and introduced into a plastic container. Evaluation takes place 3 to 10 days later. The percentage reduction in population, or the percentage reduction in feeding damage (% action), is determined by comparing the number of dead beetles and the feeding damage on the transgenic cotton plants with that of non-transgenic cotton plants which have been treated with an emulsion spray mixture comprising Ti-435 and conventional CryIIIA-toxin at a concentration of in each case 100, 50, 10, 5, 1 ppm respectively.

In this test, the control of the tested insects in the transgenic plant is superior, while it is insufficient in the non-transgenic plant.

Example B4

Action Against *Anthonomus grandis* adults,
Spodoptera littoralis or *Heliothis virescens*

Young transgenic cotton plants which express the δ -endotoxin CryIa(c) are sprayed with an aqueous emulsion spray mixture comprising 100, 50, 10, 5, 1 ppm of Ti-435 respectively. After the spray coating has dried on, the cotton plants are populated with 10 adult *Anthonomus grandis*, 10 *Spodoptera littoralis* larvae or 10 *Heliothis virescens* larvae respectively and introduced into a plastic container. Evaluation takes place 3 to 10 days later. The percentage reduction in population, or the percentage reduction in feeding damage (% action), is determined by comparing the number of dead beetles and the feeding damage on the transgenic cotton plants with that of non-transgenic cotton plants which have been treated with an emulsion spray mixture comprising Ti-435 and conventional CryIIIA-toxin at a concentration of in each case 100, 50, 10, 5, 1 ppm respectively.

In this test, the control of the tested insects in the transgenic plant is superior, while it is insufficient in the non-transgenic plant.

Example B5

Action Against *Anthonomus grandis* adults,
Spodoptera littoralis or *Heliothis virescens*

Young transgenic cotton plants which express the δ -endotoxin CryIa(c) are sprayed with an aqueous emulsion

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spray mixture comprising 100, 50, 10, 5, 1 ppm of thiamethoxam respectively. After the spray coating has dried on, the cotton plants are populated with 10 adult *Anthonomus grandis*, 10 *Spodoptera littoralis* larvae or 10 *Heliothis virescens* larvae respectively and introduced into a plastic container. Evaluation takes place 3 to 10 days later. The percentage reduction in population, or the percentage reduction in feeding damage (% action), is determined by comparing the number of dead beetles and the feeding damage on the transgenic cotton plants with that of non-transgenic cotton plants which have been treated with an emulsion spray mixture comprising thiamethoxam and conventional CryIIIA-toxin at a concentration of in each case 100, 50, 10, 5, 1 ppm respectively.

In this test, the control of the tested insects in the transgenic plant is superior, while it is insufficient in the non-transgenic plant.

Example B6

Action Against *Anthonomus grandis* adults,
Spodoptera littoralis or *Heliothis virescens*

Young transgenic cotton plants which express the δ -endotoxin CryIa(c) are sprayed with an aqueous emulsion spray mixture comprising 100, 50, 10, 5, 1 ppm of imidacloprid respectively. After the spray coating has dried on, the cotton plants are populated with 10 adult *Anthonomus grandis*, 10 *Spodoptera littoralis* larvae or 10 *Heliothis virescens* larvae respectively and introduced into a plastic container. Evaluation takes place 3 to 10 days later. The percentage reduction in population, or the percentage reduction in feeding damage (% action), is determined by comparing the number of dead beetles and the feeding damage on the transgenic cotton plants with that of non-transgenic cotton plants which have been treated with an emulsion spray mixture comprising imidacloprid conventional CryIIIA-toxin at a concentration of in each case 100, 50, 10, 5, 1 ppm respectively.

In this test, the control of the tested insects in the transgenic plant is superior, while it is insufficient in the non-transgenic plant.

Example B7

Action Against *Ostrinia nubilalis*, *Spodoptera* spp.
or *Heliothis* spp.

A plot (a) planted with maize cv. KnockOut® and an adjacent plot (b) of the same size which is planted with conventional maize, both showing natural infestation with *Ostrinia nubilalis*, *Spodoptera* spp. or *Heliothis*, are sprayed with an aqueous emulsion spray mixture comprising 200, 100, 50, 10, 5, 1 ppm of Ti-435. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 200, 100, 50, 10, 5, 1 ppm of the endotoxin expressed by KnockOut®. Evaluation takes place 6 days later. The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b).

Improved control of *Ostrinia nubilalis*, *Spodoptera* spp. or *Heliothis* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

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Example B8

Action Against *Ostrinia nubilalis*, *Spodoptera* spp.
or *Heliothis* spp.

A plot (a) planted with maize cv. KnockOut® and an adjacent plot (b) of the same size which is planted with conventional maize, both showing natural infestation with *Ostrinia nubilalis*, *Spodoptera* spp. or *Heliothis*, are sprayed with an aqueous emulsion spray mixture comprising 200, 100, 50, 10, 5, 1 ppm of thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 200, 100, 50, 10, 5, 1 ppm of the endotoxin expressed by KnockOut®. Evaluation takes place 6 days later. The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b).

Improved control of *Ostrinia nubilalis*, *Spodoptera* spp. or *Heliothis* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B9

Action Against *Ostrinia nubilalis*, *Spodoptera* spp.
or *Heliothis* spp.

A plot (a) planted with maize cv. KnockOut® and an adjacent plot (b) of the same size which is planted with conventional maize, both showing natural infestation with *Ostrinia nubilalis*, *Spodoptera* spp. or *Heliothis*, are sprayed with an aqueous emulsion spray mixture comprising 200, 100, 50, 10, 5, 1 ppm of imidacloprid. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 200, 100, 50, 10, 5, 1 ppm of the endotoxin expressed by KnockOut®. Evaluation takes place 6 days later. The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b).

Improved control of *Ostrinia nubilalis*, *Spodoptera* spp. or *Heliothis* spp. is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B10

Action Against *Diabrotica balteata*

A plot (a) planted with maize seedlings cv. KnockOut® and an adjacent plot (b) of the same size which is planted with conventional maize are sprayed with an aqueous emulsion of a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the endotoxin expressed by KnockOut®. After the spray coating has dried on, the seedlings are populated with 10 *Diabrotica balteata* larvae in the second stage and transferred to a plastic container. The test is evaluated 6 days later. The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b).

Improved control of *Diabrotica balteata* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

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Example B11

Action Against *Aphis gossypii*

Cotton seedlings on a plot (a) expressing the δ -endotoxin CryIIa on a plot (a) and conventional cotton seedlings on a plot (b) are infected with *Aphis gossypii* and subsequently sprayed with a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the δ -endotoxin CryIIa. The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 3 and 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Aphis gossypii* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B12

Action Against *Frankliniella occidentalis*

Cotton seedlings expressing the δ -endotoxin CryIIa on a plot (a) and conventional cotton seedlings on a plot (b) are infected with *Frankliniella occidentalis* and subsequently sprayed with a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the δ -endotoxin CryIIa. The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 3 and 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Frankliniella occidentalis* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B13

Action Against *Aphis gossypii*

Cotton seedlings expressing the δ -endotoxin CryIA(c) on a plot (a) and conventional cotton seedlings on a plot (b) are infected with *Aphis gossypii* and subsequently sprayed with a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the δ -endotoxin CryIIa. The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 3 and 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Aphis gossypii* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B14

Action Against *Frankliniella occidentalis*

Cotton seedlings expressing the δ -endotoxin CryIa(c) on a plot (a) and conventional cotton seedlings on a plot (b) are infected with *Frankliniella occidentalis* and subsequently sprayed with a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the

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δ -endotoxin CryIa(c). The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 3 and 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Frankliniella occidentalis* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B15

Action Against *Nephotettix cincticeps*

Rice plants on a plot (a) expressing the δ -endotoxin CryIA(b) and conventional rice plants on a plot (b) are sprayed with a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the δ -endotoxin CryIA(b). After the spray coating has dried on, the plants are infected with *Nephotettix cincticeps* of the 2nd and 3rd stages. The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 21 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Nephotettix cincticeps* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B16

Action Against *Nephotettix cincticeps* (systemic)

Rice plants expressing the 6-endotoxin CryIa(b) are planted in a pot (A) and conventional rice plants are planted in a pot (B). Pot (A) is placed in an aqueous emulsion containing 400 ppm thiamethoxam, whereas plot (B) is placed in a pot containing 400 ppm thiamethoxam and 400 ppm of the 6-endotoxin CryIa(b). The plants are subsequently infected with *Nephotettix cincticeps* larvae of the second and third stage. The test is evaluated after 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of pot (A) with that on the plants of pot (B). Improved control of *Nephotettix cincticeps* is observed on the plants of pot (A), while pot (B) shows a control level of not over 60%.

Example B17

Action Against *Nilaparvata lugens*

Rice plants on a plot (a) expressing the 6-endotoxin CryIA(b) and conventional rice plants on a plot (b) are infected with *Nilaparvata lugens*, subsequently sprayed with a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the 6-endotoxin CryIA(b). The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 21 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Nilaparvata lugens* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

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Example B18

Action Against *Nilaparvata lugens* (Systemic)

Rice plants expressing the 6-endotoxin CryIA(b) are planted in a in pot (A) and conventional rice plants are planted in a pot (B). Pot (A) is placed in an aqueous emulsion containing 400 ppm thiamethoxam, whereas plot (B) is place in a pot copntaining 400 ppm thiamethoxam and 400 ppm of the 6-endotoxin CryIA(b). The plants are subsequently infected with *Nilaparvata lugens* larvac of the second and third stage. The test is evaluated after 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of pot (A) with that on the plants of pot (B). Improved control of *Nephotettix cincticeps* is observed on the plants of pot (A), while pot (B) shows a control level of not over 60%.

Example B19

Action Against *Nephotettix cincticeps*

Rice plants on a plot (a) expressing the 6-endotoxin CryIA(c) and conventional rice plants on a plot (b) are sprayed with a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the 8-endotoxin CryIA(c). After the spray coating has dried on, the plants are infected with *Nephotettix cincticeps* of the 2nd and 3rd stages. The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 21 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Nephotettix cincticeps* is observed on the plants of plot (a), while plot (b) shows a control level of not over 60%.

Example B20

Action Against *Nephotettix cincticeps* (Systemic)

Rice plants expressing the 6-endotoxin CryIA(c) are planted in a in pot (A) and conventional ice plants are planted in a pot (B). Pot (A) is placed in an aqueous emulsion containing 400 ppm thiamethoxam, whereas plot (B) is placed in a pot containing 400 ppm thiamethoxam and 400 ppm of the 6-endotoxin CryI(c). The plants are subsequently infected with *Nephotettix cincticeps* larvae of the second and third stage. The test is evaluated after 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of pot (A) with that on the plants of pot (B). Improved control of *Nephotettix cincticeps* is observed on the plants of pot (A), while pot (B) shows a control level of not over 60%.

Example B21

Action Against *Nilaparvata lugens*

Rice plants on a plot (a) expressing the 6-endotoxin CryIA(c) and conventional rice plants on a plot (b) are infected with *Nilaparvata lugens*, subsequently sprayed with

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a spray mixture comprising 400 ppm thiamethoxam. Immediately afterwards, plot (b) is treated with an emulsion spray mixture comprising 400 ppm of the 6-endotoxin CryIA(c). The seedlings of plot (a) and (b) are then incubated at 20° C. The test is evaluated after 21 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of plot (a) with that on the plants of plot (b). Improved control of *Nilaparvata lugens* is observed on the plants of plot (a), while plot (b) shows a control level of not over 0%.

Example B22

Action Against *Nilaparvata lugens* (Systemic)

Rice plants expressing the 8-endotoxin CryIA(c) are planted in a in pot (A) and conventional rice plants are planted in a pot (B). Pot (A) is placed in an aqueous emulsion containing 400 ppm thiamethoxam, whereas plot (B) is place in a pot copntaining 400 ppm thiamethoxam and 400 ppm of the 6-endotoxin CryIA(c). The plants are subsequently infected with *Nilaparvata lugens* larvae of the second and third stage. The test is evaluated after 6 days.

The percentage reduction in population (% action) is determined by comparing the number of dead pests on the plants of pot (A) with that on the plants of pot (B). Improved control of *Nephotettix cincticeps* is observed on the plants of pot (A), while pot (B) shows a control level of not over 60%.

The invention claimed is:

1. A method of controlling pests in crops of transgenic useful plants comprising the application of a composition comprising clothianidin, in free form or in agrochemically useful salt form as active ingredient and at least one auxiliary to the pests, or the transgenic plant or propagation material thereof.

2. The method of claim 1 where the transgenic useful plant contains one or more genes which encode insecticidal resistance and express one or more active toxins.

3. The method of claim 2 wherein the active toxin expressed by the transgenic plant is selected from *Bacillus cereus* proteins, *Bacillus poplia* proteins, *Bacillus thuringiensis* endotoxins (B.t.), insecticidal proteins of bacteria colonising nematodes, proteinase inhibitors, ribosome inactivating proteins, plant lectins, animal toxins, and steroid metabolism enzymes.

4. The method of claim 2 wherein the active toxin expressed by the transgenic plant is selected from CryIA(a), CryIA(b), CryIA(c), Cry IIA, CryIIIA, CryIIIB2, CryIA, VIP3, GL, PL, XN, Plnh., Plcc., Aggl., CO, CII, SS, and IIO.

5. The method of claim 1 where the crops of transgenic useful plants are selected from cotton, rice, potatoes, *brassica*, tomatoes, cucurbits, soybeans, maize, wheat, bananas, citrus trees, pome fruit trees and peppers.

6. The method of claim 1 wherein the composition is applied to the transgenic useful plant.

7. The method of claim 1 wherein clothianidin is applied to the propagation material of the transgenic useful plant.

8. The method of claim 7 wherein the propagation material is seed.

* * * * *